SLic # 744 354

# Erler & Kalinowski, Inc.

Consulting Engineers and Scientists

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16 August 2000

Mr. Steven Hariri
Site Cleanup Unit
California Regional Water Quality Control Board
Los Angeles Region
320 4th Street, Suite 200
Los Angeles, CA 90013

Subject:

Quarterly Progress Report for April through June 2000 For the Jervis B. Webb Company of California Property, 5030 Firestone Boulevard, South Gate, California (RWQCB SLIC File No. 744; EKI 991103.01)



Dear Mr. Hariri:

On behalf of Jervis B. Webb Company of California ("Webb"), Erler & Kalinowski, Inc. is pleased to submit the enclosed *Quarterly Progress Report for April through June 2000*, dated 16 August 2000. This report describes the activities completed at the Webb property located at 5030 Firestone Boulevard in South Gate during the period from April through June 2000.

Michael J. Moes, F

**Project Engineer** 

Please contact us if you have any comments or questions.

Very truly yours,

ERLER & KALINOWSKI, INC.

Steven R. Chambers, Ph.D.

Project Manager

cc:

Mr. Michael Farley, Esq., Jervis B. Webb Company

001875

# Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California 5030 Firestone Boulevard South Gate, California

16 August 2000

# Erler & Kalinowski, Inc.

Consulting Engineers and Scientists 2951 28th Street, Suite 1020 Santa Monica, California 90405 (310) 314-8855 Fax: (310) 314-8860

# Quarterly Progress Report for April through June 2000 Jervis B. Webb Company of California 5030 Firestone Boulevard, South Gate, California

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# <u>Quarterly Progress Report for April through June 2000</u> <u>Jervis B. Webb Company of California</u> 5030 Firestone Boulevard, South Gate, California

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### 1. INTRODUCTION

Erler & Kalinowski, Inc. ("EKI") is pleased to present this Quarterly Progress Report for April through June 2000 for the property located at 5030 Firestone Boulevard and 9301 Rayo Avenue in South Gate, California Avenue (collectively referred to as the "Site," see Figure 1). The principal objectives of the activities performed during this quarter were to (1) monitor the groundwater wells at the Site and (2) continue operation of a soil vapor extraction system at the Site. The work documented in this report was performed on behalf of the Jervis B. Webb Company of California ("Webb"). The property at 5030 Firestone Boulevard is owned by Webb ("Webb Property") and the adjacent property at 9301 Rayo Avenue is owned by Reliable Steel Building Products, Inc. ("Reliable Steel").

The quarterly groundwater monitoring activities described herein were performed in accordance with EKI's *Project Tasks, Schedule, and Work Plan for Additional Groundwater Investigation and Quarterly Groundwater Monitoring at the Jervis B. Webb Company Property*, dated 29 September 1998 (EKI, 29 September 1998). The soil vapor extraction ("SVE") activities described herein were performed in accordance with the *Work Plan for Clarifier and Removal and Soil Remediation by Soil Vapor Extraction*, by EKI, dated 14 April 1999 ("Work Plan"; EKI, 14 April 1999). The RWQCB approved the Work Plan, with two modifications, in a letter dated 18 May 1999.

## 2. QUARTERLY GROUNDWATER MONITORING

#### 2.1. Measurements of Groundwater Elevation

The depth to groundwater in monitoring wells MW-1 through MW-5 was measured on 13 April, 18 May, and 20 June 2000 (see Figure 2 for well locations). These data are provided in Table 1. The depth to the groundwater table beneath the Site is approximately 44 feet below ground surface ("ft bgs"). Contours representing the elevation of the groundwater table on 13 April, 18 May, and 20 June 2000 are shown on Figures 3, 4, and 5, respectively. As inferred from the contours shown on these figures, the primary direction of groundwater flow in the groundwater table aquifer beneath the Site appears to be toward the southeast.

### 2.2. Groundwater Sampling

Samples of groundwater were collected from monitoring wells MW-1 through MW-5 on 20 June 2000. In addition, a duplicate sample of groundwater was collected from well MW-3. All samples of groundwater were submitted to Orange Coast Analytical, Inc. in Tustin, California, for analyses of volatile organic compounds ("VOCs") using United States Environmental Protection Agency ("EPA") Method 8260B. The analytical results for groundwater samples collected during this monitoring event are summarized in Table 2.

### 2.2.1. Groundwater Sampling Procedures

Prior to sampling of groundwater, each well was purged of a minimum of three well-casing volumes of groundwater using a submersible, electric pump. Groundwater purging was performed by West Hazmat Drilling Corp. ("West Hazmat") and groundwater samples were collected by EKI. All down-hole equipment was thoroughly steam cleaned before use at each well.

During purging of the monitoring wells on 20 June 2000, the temperature, pH, conductivity, and turbidity of the purged groundwater were recorded by EKI. The instruments used for monitoring the purged groundwater were calibrated prior to commencement of groundwater purging. For each purge sample, the time, water quality parameters, and volume of purged groundwater were recorded on forms in the field (see Appendix A). Purging at each well continued until the variability of the monitored groundwater quality parameters stabilized to within approximately ten percent. Groundwater quality parameters were generally stable after purging three casing volumes of water from each well. The final turbidity of the purged

groundwater was generally low, i.e., between 0.39 and 3.17 nepthelometric turbidity units (see Appendix A).

Groundwater samples were collected from each monitoring well using disposable polyethylene bailers. A new bailer was used to collect samples from each well. A sample label that included a unique sample identification number, the time, and the date when the sample was collected was attached to each sample container. Sample containers were sealed in zip-lock plastic bags and placed in a cooler with ice for temporary storage and transport to the analytical laboratory. Chain-of-Custody forms were initiated in the field and stored with the samples. Laboratory reports and Chain-of-Custody forms for groundwater samples are attached in Appendix B.

### 2.2.2. Analytical Results for Groundwater Samples

Trichloroethene ("TCE"), cis- and trans- 1,2-dichloroethene ("c-1,2-DCE" and "t-1,2-DCE"), and 1,1-dichloroethane ("1,1-DCA") were detected in the samples of groundwater collected at the Site on 20 June 2000 (see Table 2). Consistent with previous results, TCE was the chemical of concern detected with the greatest frequency (five of six samples) and at the highest concentration (24,000 ug/l in well MW-1). The analytical results for the samples of groundwater collected during this monitoring event were generally similar to the results of previous groundwater monitoring at the Site.

### 2.2.3. Quality Assurance/Quality Control

Standard laboratory QA/QC procedures used for the project included analyses of matrix spikes, matrix spike duplicates, a quality control check spike sample, and a method blank. The percent recoveries of the matrix spike, matrix spike duplicate, and the quality control check spike sample were within acceptable ranges. No analytes were detected in the method blank samples analyzed for this project. QA/QC results are provided with the laboratory reports in Appendix B.

A duplicate groundwater sample was collected from monitoring well MW-3 (see Table 2). Four analytes were detected in both of the samples of groundwater collected from well MW-3. The relative percentage differences ("RPDs") for 1,1-DCA, TCE, t-1,2-DCE, and c-1,2-DCE ranged between 9.5 and 16 percent. These RPDs indicate an acceptable range of sampling and analytical reproducibility.

EKI also collected an equipment rinsate blank during groundwater sampling activities on 20 June 2000. Following steam cleaning of the purge pump, rinse water brought on-site by West Hazmat was poured over the pump into sampling containers. EKI also collected a sample of the rinse water. The equipment rinsate blank was analyzed for VOCs by EPA Method 8260B on 26 June 2000. The concentrations of chemicals detected in the equipment rinsate blank were 100 ug/l of acetone, 5.8 ug/l of 2-butanone, 3.0 ug/l of chloroform, 2.1 ug/l of bromoform, and 1.3 ug/l of 2-hexanone. None of these chemicals were detected

above method detection limits in any of the groundwater samples collected from the monitoring wells.

Due to these detections in the equipment rinsate blank, the rinse water sample was analyzed on 7 July 2000 in an effort to identify the source of the VOCs. The concentrations of chemicals detected in the rinsate water sample were 140 ug/l of acetone, 6.9 ug/l of 2-butanone, 4.1 ug/l of chloroform, 2.8 ug/l of bromoform, and 1.5 ug/l of 2-hexanone. The same chemicals were detected in both samples, with the concentration of each chemical greater in the rinse water sample than in the rinsate blank sample. Therefore, it appears that the source of the VOCs detected in the equipment rinsate blank was the rinse water used to prepare the samples. However, as none of the chemicals detected in the equipment rinsate and rinse water samples were detected above method detection limits in any of the groundwater samples collected at the Site, it does not appear that the rinse water affected the integrity of the groundwater samples.

### 3. SOIL REMEDIATION

### 3.1. Soil Vapor Extraction System Background

#### 3.1.1. Vapor Wells

Four soil vapor extraction wells and four soil vapor monitoring probes were installed at the Site during June 1999 (see Figure 6). The wells and probes were designed to allow for vapor extraction and monitoring in both the shallow and deep vadose zones at the Site. All of the wells were constructed using Schedule 40 PVC casing and screen. More detailed discussions of well construction information and subsurface conditions at the Site are contained in two previous reports prepared by EKI (EKI, 14 April 1999; EKI, 13 October 1999).

<u>Vapor Extraction Wells</u>: The three shallow vapor extraction wells, SVE-1, SVE-2, and SVE-3, are two-inch diameter wells. SVE-1 and SVE-3 are installed to a depth of approximately 25 ft bgs with slotted screen from approximately 19 to 25 feet bgs. SVE-2 is installed to a depth of approximately 24 ft bgs with slotted screen from approximately 18 to 24 feet bgs. The deep vapor extraction well, SVE-D1, is a four-inch diameter well installed to a depth of approximately 44 feet bgs with slotted screen from approximately 30 to 40 feet bgs.

<u>Vapor Monitoring Probes</u>: The shallow vapor monitoring probes, VMP-1 and VMP-2, are two-inch diameter wells installed to a depth of approximately 25 feet bgs with slotted screen from approximately 19 to 25 feet bgs. The deep vapor monitoring probes, VMP-D1 and VMP-D2, are constructed in the same boreholes with vapor monitoring wells SVE-2 and SVE-3, respectively, and are constructed with 2-inch diameter PVC. VMP-D1 is installed to a depth of approximately 43 feet bgs with slotted screen from approximately 30 to 40 feet bgs. VMP-D2 is installed to a depth of approximately 44 feet bgs with slotted screen from approximately 31 to 41 feet bgs.

### 3.1.2. Soil Vapor Extraction System

Installation of the SVE system was completed at the Site during March 2000 (see Figure 6). Soil vapors from the four extraction wells are passed through a condensate knock-out vessel and through a 200 cubic feet per minute ("cfm") blower (see Figure 7). The soil vapors are then passed through a heat exchanger and two 1,000-pound granular activated carbon ("GAC") vessels in series, with the treated vapors exhausted to the atmosphere under permit of the South Coast Air Quality Management District ("SCAQMD"). Valves on piping from each well and an ambient air inlet valve located ahead of the knockout vessel allow regulation of air extracted from the wells. PVC pipe and fittings are used throughout the

system. Electrical power to the system is metered, and the system is enclosed in a fenced area.

Vacuum gauges, a hand-held flow meter, and sampling ports are used to monitor each of the vapor extraction wells. Vacuum is measured in inches of water column ("in-wc"), vapor flow rate is measured in actual cubic feet per minute ("acfm"), and concentrations of VOCs are measured in parts per million by volume ("ppmv"). Sampling ports were installed at each of the vapor wells and probes, and several locations in the SVE system for monitoring of VOC concentrations.

### 3.2. SVE System Operation and Monitoring

The SVE system began operating on 16 March 2000. Throughout the course of the reporting period, vapor wells SVE-1, SVE-2, SVE-3, and SVE-D1 were used as vapor extraction wells. During the period from April through June 2000, the system did not experience any shutdowns until 21 June 2000. The cause of the shutdown was traced to excess water in the knockout tank. The system was not operated for two weeks to allow removal of the water and to measure rebound VOC concentrations in the soil vapor extraction wells and monitoring probes. The system was restarted on 6 July 2000. The activities performed during the restart of the system will be presented in the next progress report.

Due to restrictions of the SCAQMD permit regarding the VOC concentration in the influent to the first GAC vessel, the system was operated at partial vapor extraction capacity with ambient air diluting the influent concentrations during March 2000. VOC concentrations have since declined to levels within SCAQMD permit requirements. As such, all extraction wells were operated at full vapor extraction capacity based upon a vacuum of approximately 150 in-wc from 6 April through 21 June 2000. However, the total volume of air extracted from the four wells was not great enough to allow for operation of the SVE system at a vacuum of 150 in-wc without the use of some dilution air.

At the time of the shutdown on 21 June 2000, flow rates in the three shallow zone extraction wells (SVE-1, SVE-2, and SVE-3) ranged from 0.65 to 2.1 acfm. The flow rate in the deep zone extraction well SVE-D1 was approximately 21 acfm at the time of shutdown.

The following parameters have been monitored during operation of the SVE system: vapor flow rate from the extraction wells; total air flow rate; vacuum (pressure) at the extraction wells and monitoring points; blower influent flow rate and vacuum; blower discharge flow rate, pressure, and temperature; and VOC concentrations in the extracted soil vapor. The water level in the knockout tank is also monitored (no water had been observed prior to the system shutdown on 21 June 2000).

Monitoring data collected at the inlet to the system blower prior to dilution are presented in Table 3a and Figure 8a. Monitoring data collected at individual soil vapor extraction wells

are presented in Tables 3b through 3e and Figures 8b through 8e. Field monitoring data for the soil vapor monitoring probes are presented in Table 4.

### 3.3. Soil Vapor Sampling

### 3.3.1. Vapor Well and System Influent Sampling

On 13 April and 18 May 2000, EKI collected soil vapor samples for laboratory analysis from the undiluted blower influent (i.e., the combined total influent of the vapor extraction wells) and extraction wells SVE-1 and SVE-D1. A duplicate soil vapor sample was collected from the blower influent on 13 April 2000. The samples were collected in one-liter Tedlar bags using a purge/sampling pump connected to a sampling port with Teflon tubing. All samples were labeled with a unique sample identification number, and chain-of-custody forms were initiated at the time of sampling. All samples were analyzed for VOCs by Performance Analytical, Inc., of Simi Valley, California, using EPA Method TO-14A. Analytical results for the samples are summarized in Table 5, and laboratory data sheets are attached in Appendix C.

Shallow Vadose Zone: The only VOCs detected at concentrations above method detection limits in the soil vapor samples collected from extraction well SVE-1 on 13 April and 18 May 2000 were TCE, PCE, and 1,1,1-trichloroethane ("1,1,1-TCA"; see Table 5). Between 13 April and 18 May 2000, TCE and PCE concentrations in well SVE-1 decreased from 6,500 to 3,700 ppmv, and 120 to 94 ppmv, respectively. 1,1,1-TCA was not detected above the method detection limit of 92 ppmv on 13 April 2000, and was detected at a concentration of 7.3 ppmv on 18 May 2000. No other VOCs were detected above method detection limits. The decrease in the concentration of TCE in soil vapor samples collected from extraction well SVE-1 during operation of the SVE system is illustrated on Figure 8b.

Deep Vadose Zone: A number of VOCs were detected above method detection limits in soil vapor samples collected from extraction well SVE-D1. However, TCE and carbon disulfide were the only VOCs detected at concentrations above 1 ppmv. Between 13 April and 18 May 2000, TCE concentrations decreased in well SVE-D1 from 25 to 8.6 ppmv. Carbon disulfide was detected at a concentration of 1.2 ppmv on 13 April 2000 and was not detected above the method detection limit of 0.32 ppmv on 18 May 2000. The VOCs detected below a concentration of 1 ppmv were benzene, 1,1-dichloroethene ("1,1-DCE"), cis-1,2-dichloroethene ("cis-1,2-DCE"), PCE, and toluene. No other VOCs were detected above method detection limits. The decrease in the concentration of TCE in soil vapor samples collected from extraction well SVE-D1 during operation of the SVE system is illustrated on Figure 8c.

<u>SVE Blower Influent</u>: A number of VOCs were detected above method detection limits in soil vapor samples collected from the blower influent. However, TCE, carbon disulfide, PCE, and toluene were the only VOCs detected at concentrations above 1 ppmv. Between

13 April and 18 May 2000, TCE concentrations in the blower influent decreased from 65 to 53 ppmv and PCE concentrations in the blower influent increased from 1.1 to 2.2 ppmv. Carbon disulfide and toluene were detected at concentrations of 7.7 and 2.1 ppmv, respectively, on 13 April 2000 and were not detected above the method detection limits of 1.6 and 1.3 ppmv, respectively, on 18 May 2000. The VOCs detected below a concentration of 1 ppmv were 1,1-DCE, methylene chloride, and methyl ethyl ketone ("MEK"). No other VOCs were detected above method detection limits. The decrease in the concentration of TCE in soil vapor samples collected from the blower influent during operation of the SVE system is illustrated on Figure 8a.

Quality Assurance/Quality Control: Standard laboratory QA/QC procedures used for the project included analyses of laboratory duplicates and method blanks. The RPDs of the laboratory duplicates were within acceptable ranges. No analytes were detected in the method blank samples analyzed for this project. QA/QC results are provided with the laboratory reports in Appendix C. A duplicate vapor sample was collected from the blower influent on 13 April 2000 (see Table 5). Four analytes were detected above method detection limits in both of the samples of soil vapor collected from the blower influent. The relative percentage differences ("RPDs") for TCE, PCE, carbon disulfide, and toluene ranged between 7.4 and 15 percent. These RPDs indicate an acceptable range of sampling and analytical reproducibility.

### 3.3.2. Estimated VOC Removal Rates

Rates of VOC removal were estimated using measured vacuum readings, flow rates, and analytical data (see Tables 3a through 3e). Laboratory data were used to calculate VOC removal rates on days when samples were collected for laboratory analyses. Based on measurements made at the blower influent, an estimated 74 pounds of VOCs, including 70 pounds of TCE, have been extracted from soil at the Site as of 21 June 2000 (see Table 3a and Figure 9). Using measurements made at individual extraction wells, an estimated 182 pounds of VOCs, including 176 pounds of TCE, have been extracted by the SVE system at the Site (see Tables 3b, 3c, 3d, and 3e). Approximately 75 percent of the mass removal has occurred in the shallow vadose zone.

The sum of the mass removal calculated for each of the extraction wells is higher than the estimated mass removal as measured at the blower influent. This anomaly is caused in part by low precision in measuring the relatively low flow rates in the shallow zone extraction wells and is magnified by the high TCE concentration measured in well SVE-1. The measurements made at the blower influent are considered to be the more reliable measurements of total VOC mass removal.

### 3.3.3. Soil Vapor Field Monitoring

Total VOC concentrations in soil vapor samples were also occasionally monitored with an organic vapor meter, which utilizes a photoionization detector ("PID") to measure total

concentrations of VOCs. The PID does not distinguish between individual compounds, but gives a reading for total VOCs. Samples for PID analyses were collected in Tedlar bags using the method described in Section 3.3.1. The PID was calibrated with 100 ppmv of isobutylene.

PID readings from soil vapor samples collected at the extraction wells and vapor monitoring probes are presented in Tables 3a through 3e and in Table 4. These data are plotted as a function of time on Figures 8a through 8e. PID readings suggest that total VOC concentrations in the blower influent and each of the vapor wells and probes have decreased during the reporting period. Further sampling is planned to confirm these trends.

### 3.3.4. SCAOMD Compliance Monitoring

During the reporting period, the effluent of the treatment system was monitored with a PID on a weekly basis to demonstrate conformance with the limitations of the SCAQMD permit for the system. For treatment system monitoring, the PID was calibrated with 50 ppmv of hexane. Effluent concentrations measured by the PID have been within the discharge limitations of the SCAQMD permit. On the basis of the PID monitoring, the GAC in the treatment system contactors was replaced on 8 June 2000.

# 4. PLANNED ACTIVITIES FOR NEXT QUARTER

During the next quarter, the depth to groundwater in the monitoring wells at the Site will continue to be measured on a monthly basis. Samples of groundwater will be collected from each of the groundwater monitoring wells at the Site during September 2000. These samples will be analyzed for VOCs using EPA Method 8260B.

The SVE system at the Site will continue operating throughout the next quarter. Flow rates, vacuum, and PID readings will be monitored at the extraction wells on a weekly basis throughout the quarter. It is anticipated that vapor samples will be collected from the blower influent, soil vapor extraction wells, and vapor monitoring probes on a monthly basis for laboratory analysis using EPA Method TO-14A. Vacuum and total VOC concentrations at the vapor monitoring probes will also be monitored on a monthly basis during the next quarter.

A rebound test was conducted on 6 July 2000 to evaluate the effectiveness of the SVE system at the Site. At the end of six months of operation (September 2000), an additional rebound test will be performed. During a rebound test, the SVE system is shut off for a period of two weeks and samples are collected from the soil vapor extraction wells and vapor monitoring probes under static conditions. These soil vapor samples are then analyzed for VOCs using EPA Method TO-14A. The results of the rebound tests and monitoring during system operation will be used to evaluate the effectiveness of the SVE system and the need for continued operation of the system. These data and evaluations will be presented in the next progress report.

### 5. SUMMARY

Gauging of the depth to the groundwater table was performed at the groundwater monitoring wells at the Site on 13 April, 18 May, and 20 June 2000. On the basis of these measurements, the predominant direction of groundwater flow appears to be toward the southeast under both the Webb and Reliable Steel properties. This estimated direction of groundwater flow is consistent with previous groundwater monitoring at the Site.

TCE, c-1,2-DCE, t-1,2-DCE, and 1,1-DCA were detected in samples of groundwater collected from the groundwater monitoring wells at the Site on 20 June 2000. Consistent with previous results, TCE was the chemical of concern detected with the greatest frequency (five of six samples) and at the highest concentration (24,000 ug/l in well MW-1). The analytical results for the samples of groundwater collected during this monitoring event were generally similar to the results of previous groundwater monitoring at the Site.

The soil vapor extraction system at the Site operated for all but the last nine days of the quarter. Soil vapor samples were collected for laboratory analysis at vapor extraction wells SVE-1 and SVE-D1 twice during the quarter. Samples of influent to the SVE system blower were collected for laboratory analysis twice during the quarter. Chemical analyses of these vapor samples detected TCE, PCE, 1,1,1-TCA, carbon disulfide, toluene, methylene chloride, 1,1-DCE, and MEK. The detected concentrations of TCE were higher than the concentrations of the other VOCs detected in each sample. The measured concentrations of VOCs in the blower influent and in samples of soil vapor collected from the vapor extraction wells and monitoring probes generally decreased during the reporting period.

The soil vapor flow rates from the extraction wells are not as high as anticipated in the Work Plan for the project (EKI, 14 April 1999), but the radius of influence of the SVE system appears to be adequate for VOC removal in the area of the former clarifier at the Site. An estimated 73 pounds of VOCs, including 70 pounds of TCE, have been extracted from the soil at the Site as of 21 June 2000.

### 6. REFERENCES AND PREVIOUS REPORTS

Erler & Kalinowski, Inc., 20 June 1996. Phase I Environmental Site Assessment of the Jervis B. Webb Properties at 9301 Rayo Avenue and 5030 Firestone Boulevard in South Gate, California.

Erler & Kalinowski, Inc., 18 February 1998. Phase II Soil Investigation Report for the Jervis B. Webb Company Property at 5030 Firestone Boulevard in South Gate, California.

Erler & Kalinowski, Inc., 30 June 1998. Phase II Groundwater Investigation Report at 5030 Firestone Boulevard in South Gate, California.

Erler & Kalinowski, Inc., 29 September 1998. Project Tasks, Schedule, and Work Plan for Additional Groundwater Investigation and Quarterly Groundwater Monitoring at the Jervis B. Webb Company Property.

Erler & Kalinowski, Inc., 21 October 1998. Transmittal of Results for Additional Groundwater Investigation and Proposed Well Installation at 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 13 January 1999. Additional Groundwater Investigation and Quarterly Monitoring Report for October to December 1998, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 14 April 1999. Work Plan for Clarifier and Removal and Soil Remediation by Soil Vapor Extraction at the Jervis B. Webb Company Property Located at 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 4 June 1999. Quarterly Progress Report for January to March 1999, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 30 July 1999. Quarterly Progress Report for April to June 1999, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 13 October 1999. Quarterly Progress Report for July to August 1999, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 4 February 2000. Quarterly Progress Report for September to December 1999, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

Erler & Kalinowski, Inc., 27 April 2000. Quarterly Progress Report for January through March 2000, Jervis B. Webb Company Property, 5030 Firestone Boulevard, South Gate, California.

# TABLE 1 Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

		Elevation of	Depth to	Elevation of	
Well ID	Date	Top-of-Casing	Water	Water Surface	Comments
		(ft msl)	(ft bgs)	(ft msl)	
MW-1	2/27/98	106.09	44.79	61.30	
	3/2/98	106.09	44.82	61.27	
	3/4/98	106.09	44.58	61.51	
	4/8/98	106.09	44.57	61.52	
	5/20/98	106.09	43.99	62.10	
	10/8/98	106.09	43.38	62.71	
	11/5/98	106.09	43.14	62.95	
	12/21/98	106.09	43.37	62.72	
	1/19/99	106.09	43.26	62.83	
	2/3/99	106.09	42.98	63.11	
	3/30/99	106.09	43.22	62.87	
	6/1/99	106.09	43.48	62.61	
	7/29/99	106.09	43.82	62.27	
	9/1/99	106.09	43.76	62.33	
	9/23/99	106.09	44.03	62.06	
	10/18/99	106.09	44.43	61.66	
	12/8/99	106.09	44.55	61.54	
	1/27/00	106.09	44.40	61.69	
	2/28/00	106.09	44.34	61.75	
	3/15/00	106.09	44.06	62.03	
	4/13/00	106.09	44.73	61.36	
	5/18/00	106.09	44.58	61.51	
	6/20/00	106.09	44.60	61.49	
MW-2	2/27/98	106.65	44.02	62.63	
	3/2/98	106.65	44.06	62.59	
	3/4/98	106.65	44.13	62.52	
	4/8/98	106.65	NR		Truck parked on well.
	5/20/98	106.65	43.51	63.14	
	10/8/98	106.65	42.84	63.81	
	11/5/98	106.65	42.64	64.01	
	12/21/98	106.65	42.69	63.96	
	1/19/99	106.65	42.66	63.99	
	2/3/99	106.65	42.55	64.10	
	3/30/99	106.65	42.63	64.02	
	6/1/99	106.65	42.91	63.74	
	7/29/99	106.65	43.13	63.52	
	9/1/99	106.65	43.14	63.51	
	9/23/99	106.65	43.35	63.30	
	10/18/99	106.65	43.60	63.05	

# TABLE 1 Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

		Elevation of	Depth to	Elevation of	
Well ID	Date	Top-of-Casing	Water	Water Surface	Comments
		(ft msl)	(ft bgs)	(ft msl)	
MW-2	12/8/99	106.65	43.62	63.03	
(cont.)	1/27/00	106.65	43.86	62.79	
	2/28/00	106.65	43.86	62.79	
	3/15/00	106.65	43.62	63.03	
	4/13/00	106.65	43.92	62.73	
	5/18/00	106.65	43.50	63.15	
	6/20/00	106.65	43.48	63.17	
MW-3	2/27/98	105.87	44.55	61.32	
	3/2/98	105.87	44.56	61.31	
	3/4/98	105.87	44.40	61.47	
	4/8/98	105.87	44.39	61.48	
	5/20/98	105.87	43.80	62.07	
	10/8/98	105.87	43.26	62.61	
	11/5/98	105.87	43.60	62.27	
	12/21/98	105.87	43.33	62.54	
	1/19/99	105.87	43.18	62.69	
	2/3/99	105.87	42.97	62.90	
	3/30/99	105.87	43.19	62.68	
	6/1/99	105.87	43.58	62.29	
	7/29/99	105.87	43.85	62.02	
	9/1/99	105.87	43.90	61.97	
	9/23/99	105.87	44.10	61.77	
	10/18/99	105.87	44.37	61.50	
	12/8/99	105.87	44.64	61.23	
	1/27/00	105.87	44.69	61.18	
	2/28/00	105.87	44.75	61.12	
	3/15/00	105.87	44.41	61.46	
	4/13/00	105.87	44.86	61.01	
	5/18/00	105.87	44.94	60.93	
	6/20/00	105.87	44.88	60.99	
MW-4	11/3/98	104.72	42.77	61.95	Well Developed
	11/5/98	104.72	42.64	62.08	
	12/21/98	104.72	42.93	61.79	
	1/19/99	104.72	42.80	61.92	
	2/3/99	104.72	42.63	62.09	
	3/30/99	104.72	42.89	61.83	
	6/1/99	104.72	43.28	61.44	
	7/29/99	104.72	43.63	61.09	
	9/1/99	104.72	43.70	61.02	

# TABLE 1 Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing	Depth to Water	Elevation of Water Surface	Comments
Well ID	Date	(ft msl)	(ft bgs)	(ft msl)	Comments
MW-4	9/23/99	104.72	43.96	60.76	
(cont.)	10/18/99	104.72	44.22	60.50	
	12/8/99	104.72	44.48	60.24	
	1/27/00	104.72	44.70	60.02	
	2/28/00	104.72	NR		Truck parked on well.
	3/15/00	104.72	44.37	60.35	· ·
	4/13/00	104.72	NR		Truck parked on well.
	5/18/00	104.72	44.81	59.91	
	6/20/00	104.72	44.94	59.78	
MW-5	11/3/98	106.13	43.32	62.81	Well Developed
	11/5/98	106.13	43.30	62.83	
	12/21/98	106.13	43.58	62.55	
ļ	1/19/99	106.13	43.46	62.67	
	2/3/99	106.13	43.20	62.93	
	3/30/99	106.13	43.49	62.64	
	6/1/99	106.13	43.88	62.25	
	7/29/99	106.13	44.19	61.94	
	9/1/99	106.13	44.22	61.91	
	9/23/99	106.13	44.48	61.65	
	10/18/99	106.13	44.72	61.41	
	12/8/99	106.13	44.98	61.15	
	1/27/00	106.13	45.17	60.96	
	2/28/00	106.13	45.15	60.98	
	3/15/00	106.13	44.87	61.26	
	4/13/00	106.13	45.22	60.91	
	5/18/00	106.13	45.29	60.84	
	6/20/00	106.13	45.30	60.83	

#### NOTES:

ft msl = feet above mean sea level

ft bgs = feet beneath ground surface

NR = Not Recorded
-- Not Applicable

- 1. Monitoring well northing and easting coordinates and top-of-casing elevations for wells MW-1, MW-2, and MW-3 were surveyed on 6 March 1998 by Rattray & Associates, Inc.
- 2. Monitoring well northing and easting coordinates and top-of-casing elevations for wells MW-4 and MW-5 were surveyed on 21 December 1998 by Rattray & Associates, Inc.

# TABLE 2 Analytical Results for Groundwater Samples

Quarterly Progress Report for April through June 2000

		Sample				Д	nalyte Co	ncentratio	n			
Well ID	Sample Number	Date	Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE	TDS
		Date	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)
MW-1	MW-1-0304	3/4/98	<100	<100	<100	220	<100	130	<100	140	24,000	-
	MW-1-0304DUP	3/4/98	<100	<100	<100	210	<100	150	<100	160	25,000	
	MW-1-0520	5/20/98	<125	<125	<125	160	<125	130	<125	<125	24,000	1,500
	MW-1	11/5/98	<125	<125	<125	140	<125	160	<125	170	28,000	
	MW-1	2/3/99	<125	<125	<125	130	<125	160	<125	160	27,000	
	MW-1	6/1/99	<100	<100	<100	140	<100	190	<100	160	28,000	
	MW-1	9/1/99	<100	<100	140	220	<100	200	<100	190	32,000	
	MW-1	12/8/99	<250	<250	<250	<250	<250	<250	<250	<250	30,000	
	MW-1-A <sup>(3)</sup>	12/8/99	<100	<100	110	150	<100	200	<100	160	33,000	
	MW-1	3/15/00	<100	<100	<100	160	<100	230	<100	150	30,000	
	MW-1	6/20/00	<100	<100	<100	<100	<100	<100	<100	<100	24,000	-
MW-2	MW-2-0304	3/4/98	<10	<10	13	34	<10	65	<10	<10	2,700	
	MW-2-0520	5/20/98	<10	<10	14	38	<10	68	<10	<10	3,000	2,500
	MW-2	11/5/98	<10	<10	13	36	<10	68	<10	<10	3,200	
	MW-2	2/3/99	<10	<10	13	36	<10	70	<10	<10	3,200	
	MW-2	6/1/99	<10	<10	12	34	<10	68	<10	<10	2,800	
	MW-2	9/1/99	<10	<10	16	49	<10	72	<10	<10	3,100	
	MW-2	12/8/99	<13	<13	<13	<13	<13	57	<13	<13	2,400	
	MW-2-A <sup>(3)</sup>	12/8/99	<10	<10	12	22	<10	63	<10	<10	2,600	
	MW-2	3/15/00	<10	<10	<10	<10	<10	74	<10	<10	2,800	
	MW-2	6/20/00	<10	<10	<10	<10	<10	46	<10	<10	2,000	

# TABLE 2 Analytical Results for Groundwater Samples

Quarterly Progress Report for April through June 2000

		Sample				Α	nalyte Co	Analyte Concentration										
Well ID	Sample Number	Date	Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE	TDS						
		Date	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)						
MW-3	MW-3-0304	3/4/98	<10	13	14	82	<10	200	<10	<10	2,800							
	MW-3-0520	5/20/98	<10	<10	13	58	<10	230	15	<10	2,800	1,100						
	MW-3	11/5/98	<10	<10	11	66	<10	240	18	<10	2,300							
	MW-3	2/3/99	<10	<10	11	64	<10	220	18	<10	2,000							
	MW-3	6/1/99	<10	<10	11	66	53	240	18	<10	1,900							
	MW-3	9/1/99	<10	<10	13	80	<10	270	20	<10	2,600							
	MW-3	12/8/99	<13	<13	<13	<13	<13	220	<13	<13	2,500							
	MW-3-A <sup>(3)</sup>	12/8/99	<10	<10	13	55	<10	240	19	<10	2,900							
	MW-3	3/15/00	<10	<10	11	61	<10	300	20	<10	3,100							
	MW-3	6/20/00	<10	<10	10	<10	<10	170	14	<10	1,900							
	MW-3-DUP	6/20/00	<10	<10	11	<10	<10	200	16	<10	2,100							
MW-4	MW-4	11/5/98	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	6.7							
	MW-4	2/3/99	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5							
	MW-4	6/1/99	<0.5	<0.5	<0.5	<0.5	65	1.1	<0.5	<0.5	0.90							
	MW-4	9/1/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5							
	MW-4	12/8/99	1.2	<0.5	<0.5	<0.5	<0.5	4.1	1.0	<0.5	17							
	MW-4-A <sup>(3)</sup>	12/8/99	1.2	<0.5	<0.5	<0.5	<0.5	4.6	1.1	<0.5	18	***						
	MW-4	3/15/00	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68							
	MW-4	6/20/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5							

# TABLE 2 Analytical Results for Groundwater Samples

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

		Sample				A	nalyte Co	ncentratio	n	· · · · · · · · · · · · · · · · · · ·		
Well ID	Sample Number	Date	Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE	TDS
		Dute	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)
MW-5	MW-5	11/5/98	<25	<25	<25	42	<25	380	30	<25	5,000	
	MW-5-DUP	11/5/98	<25	<25	<25	40	<25	360	29	<25	4,800	
	MW-5	2/3/99	<25	<25	<25	49	<25	420	35	<25	5,100	
	MW-5-DUP	2/3/99	<25	<25	<25	45	<25	370	31	<25	4,500	
	MW-5	6/1/99	<25	<25	<25	52	35	420	36	<25	5,500	
	MW-5-DUP	6/1/99	<25	<25	<25	56	39	430	35	<25	5,300	
	MW-5	9/1/99	<25	<25	<25	40	<25	420	45	<25	5,500	
	MW-5-DUP	9/1/99	<25	<25	<25	69	<25	440	45	<25	6,000	
	MW-5	12/8/99	<50	<50	<50	<50	<50	390	<50	<50	5,100	
	MW-5-A <sup>(3)</sup>	12/8/99	<25	<25	<25	<25	<25	410	25	<25	5,300	
	MW-5-DUP	12/8/99	<50	<50	<50	<50	<50	360	<50	<50	5,000	
	MW-5-DUP-A <sup>(3)</sup>	12/8/99	<25	<25	<25	<25	<25	410	26	<25	5,300	••
	MW-5	3/15/00	<50	<50	<50	<50	<50	440	<50	<50	5,500	
	MW-5-DUP	3/15/00	<50	<50	<50	<50	<50	450	<50	<50	5,800	
	MW-5	6/20/00	<25	<25	<25	<25	<25	350	<25	<25	4,400	

NOTES:

1,1-DCA = 1,1-dichloroethane

1,1-DCE = 1,1-dichloroethene

1,2-DCA = 1,2-dichloroethane

c-1,2-DCE = cis-1,2-dichloroethene

t-1,2-DCE = trans-1,2-dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

TDS = total dissolved solids

VOCs = volatile organic compounds

mg/l = milligrams per liter

ug/l = micrograms per liter

-- indicates not analyzed

<sup>1.</sup> Analyses performed by Orange Coast Analytical, Inc., in Tustin, California, using EPA Method 8260 for VOCs and EPA Method 160.1 for TDS.

<sup>2. &</sup>lt; indicates that the analyte was not detected at a concentration above the indicated method detection limit.

<sup>3.</sup> Samples collected on 8 December 1999 were initially analyzed on 9 December 1999 and were re-analyzed on 17 December 1999 in an attempt to achieve lower method detection limits.

# TABLE 3a Soil Vapor Extraction Data: Blower Influent

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

		Elapsed		FI	ow		Total	Ana	lyte Con	centratio	n by Lai	orato	ory Analy	<b>ysis</b> (p	pmv)		ted VOC al Rates		ive Mass loval
Date	Time	Time on Hour Meter (hrs)	Operation Time	(acfm)	(scfm)	Vacuum (in-wc)	VOCs by PID (ppmv)	Carbon Disulfide	1,1-DCE	Methylene Chloride	MEK	PCE	1,1,1-TCA	TCE	Toluene	TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)
3/16/00	16:00	5.6	0%	4.5	4.1	35	2,000+	<16	8.2 tr	<14	<17	19	<9.2	860	49	1.8	1.9	0	0
3/17/00	7:00	20.3	100%	5.2	4.7	37	90	-	-	-	-	-	-	-	-	-	-	-	-
3/18/00	6:30	44.7	100%	5.4	4.9	38	130	-	-	-	-	-	-	-	-	-	-	-	-
3/19/00	6:30	47.9	13%	6.1	5.5	38	100	-	-	-	-	-	-	-	-	-	-	-	-
3/20/00	6:30	72.2	100%	8.6	7.7	43	150	-	-	-	-	•	-	-	-	-	-	-	- ;
3/21/00	7:00	96.3	100%	4.8	4.1	60	750	-	-	-	-	-	-	-	-	-	-	-	-
3/22/00	7:30	120.5	100%	11	10	15	170	<6.5	<5.0	<5.8	<6.8	11	3.0 tr	490	3.9 tr	2.5	2.6	10	11
3/30/00	11:00	316	100%	20	18	45	39	-	-	-	-	-	-	-	-	-	-	-	-
4/6/00	11:00	483	100%	25	17	125	42	] -	-	-	-	-	-	-	-	-	-	-	-
				25	16	140	-	-	-	-	-	-	-	-	-	-	-	-	-
4/13/00	8:00	648	100%	21	13	150	42	7.7	0.76 tr	0.91 tr	0.90 tr	1.2	<0.92	70	2.1	0.45	0.51	43	45
ŀ			ļ	21	13	150	-	-	-	•	-	-	-	-	-	0.45	0.51	-	-
4/20/00	7:30	815	100%	21	13	145	43	-	-	-	-	-	-	-	-	-	-	-	-
				13	8.3	150	-	-	-	-	-	-	-	-	-	-	-	•	-
4/27/00	7:00	983	100%	16	10	150	30	-	-	-	-	-	-	-	-	•	-	-	-
				· 55	34	150	-	-	-	-	-	-	-	-	-	-	-	-	-
5/4/00	8:30	1,152	100%	16	10	150	20	-	-	-	-	-	-	-	-	-	-	-	-
				14	9.0	150	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/00	6:30	1,318	100%	14	9.0	150	20	-	-	-	-	-	-		-	-	-	-	-
				15	9.3	150	-	-	-	-	-	-	-	-	-	-	-	-	-
5/18/00	7:00	1,486	100%	19	12	150	38	<1.6	<1.3	<1.5	<1.7	2.2	< 0.93	53	<1.3	0.32	0.34	56	60
				28	18	150	-	-	-	-	-	-	-	-	-	0.47	0.50	-	- 1
5/25/00	6:30	1,654	100%	18	12	150	19	-	-	-	-	-	-	-	-	-	-	-	-
1				18	. 12	150	-	-	-	-	-	-	-	-	-	-	-	-	-
6/1/00	6:30	1,822	100%	18	11	150	34	-	-	-	•	· -	-	-	-	-	-	•	-
1				18	11	150	-	-	-	-	-	-	•	-	-	-	-	_	-
6/8/00	7:00	1,990	100%	26	16	155	27	-	-	-	-	-	-	•	-	-	-	-	-
				25	16	150	-	-	-	-	-	-	-	-	-	-	-	-	<b>-</b> ,
6/15/00	7:30	2,158	100%	26	16	150	28	-	-	-	-	-	-	-	-	-	-	-	_
				26	16	150	-	-	-	-	-	-	-	-	-	-	-	-	-
6/21/00	17:30	2,312	100%	26	16	150	28	-	-	-	-			-		0.32	0.34	70	74

Erler & Kalinowski, Inc.

001899

### **TABLE 3a**

## Soil Vapor Extraction Data: Blower Influent

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

#### NOTES:

1.1-DCE = 1.1-dichloroethene MEK = methyl ethyl ketone PCE = tetrachloroethene 1.1.1-TCA = 1.1.1-trichloroethane

acfm = actual cubic feet per minute

TCE = trichloroethene

°F = degrees Fahrenheit

hrs = hours

in-wc = inches of water column

lb/day = pounds per day

lbs = pounds

PID = photoionization detector

ppmv = parts per million by volume scfm = standard cubic feet per minute

tr = trace (concentration detected at less than reporting limit)

VOCs = volatile organic compounds

- = no measurement

< = not detected at indicated method detection limit

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Laboratory analyses were performed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm) using the measured vacuum).
- 4. Cumulative mass removal amounts are calculated using an average removal rate and elapsed system operation time.
- 5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
- 6. The SVE system shut down on 21 June 2000 at approximately 5:30 PM. The system was not restarted during the reporting period.
- 7. For the 21 June 2000 removal rates, the analyte concentrations were estimated using the 18 May 2000 analytical data multiplied by a ratio of PID readings.

TABLE 3b
Soil Vapor Extraction Data: Extraction Well SVE-1

Quarterly Progress Report for April through June 2000

<del>u</del>		Elapsed	FI	ow			Analyte		ation by La	boratory		ted VOC		ative Mass
Date	Time	Time on Hour Meter (hrs)	(acfm)	(scfm)	Vacuum (in-wc)	Total VOCs by PID (ppmv)	PCE	1,1,1-TCA	s (ppmv)	Toluene	TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs
3/16/00	16:00	5.6	0.04	0.04	35	870	230	53 tr	10,000	170	0.18	0.19	0	0
3/17/00	7:00	20.3	0.04	0.04	37	190	-	•	-	-	-	-	-	-
3/18/00	6:30	44.7	0.06	0.05	38	200	•	-	-	-	-	-	-	-
3/19/00	6:30	47.9	0.70	0.63	38	2,000+	-	-	•	-	_	-	-	_
3/20/00	6:30	72.2	0.63	0.56	43	2,000+	-	-	-	•	-	-	-	-
3/21/00	7:00	96.3	0.61	0.52	60	2,000+	-	-	-	-	-	-	-	-
3/22/00	7:30	120.5	0.58	0.56	15	2,000+	140	43	10,000	42	2.8	2.9	7.1	7.3
3/30/00	11:00	316	0.87	0.79	38	1,800	-	•	_	-	-	-		_
			0.78	0.69	45	-	-	-	-	-	-	-	-	-
4/6/00	11:00	483	0.45	0.31	125	720	_	-	-		-	-	-	-
			0.70	0.46	140	] -	-		-	-	-	-	_	-
4/13/00	8:00	648	0.85	0.54	150	720	120	<92	6,500	<130	1.7	1.8	57	58
			0.85	0.54	150	-	_	-	-	-	1.7	1.8	-	-
4/20/00	7:30	815	0.70	0.45	145	870	-	-	-	-	-	-	_	-
			0.83	0.52	150	-	-	-	-	-	-	-	_	-
4/27/00	7:00	983	0.87	0.55	150	920	-	-	_	-	-	-	-	_
			0.87	0.55	150	-	-	-	•	-	-	-	_	_
5/4/00	8:30	1,152	0.89	0.56	150	1,400	-	_	_	•	-	-	-	_
			0.89	0.56	150	-	-	-	-	-	_	- [	-	_
5/11/00	6:30	1,318	0.92	0.58	150	2,000+	-	_	-	-	-	- 1	-	_
			0.93	0.59	150	-	_		-	-	_	_	_	-
5/18/00	7:00	1,486	1.1	0.68	150	280	94	7.3 tr	3,700	<11	1.2	1.3	109	112
			1.1	0.69	150	-	_	-	· <u>-</u>	-	1.3	1.3	-	_
5/25/00	6:30	1,654	1.3	0.84	150	150	-		_	-	_	-	_	•
		•	1.3	0.84	150	-	-		-	-		- 1	_	
6/1/00	6:30	1,822	0.65	0.41	150	130	-	_	-	_	_	_	_	_
		•	0.65	0.41	150	-	-	-	-	-	_	_	_	_
6/8/00	7:00	1,990	0.67	0.41	155	110	-	-	-	_	_	_ }	_	_
		•	0.65	0.41	150	- 1		-	-	_	-	- 1	-	-
6/15/00	7:30	2,158	0.65	0.41	150	110	_	-	-	-	-	-		· <u>-</u>
		•	0.65	0.41	150	-	-		-	-	-	-	_	-
6/21/00	17:30	2,312	0.65	0.41	150	110	-	-	_	_	0.29	0.30	136	139

### **TABLE 3b**

## Soil Vapor Extraction Data: Extraction Well SVE-1

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

#### NOTES:

PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours

in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute

tr = trace (concentration detected at less than reporting limit) VOCs = volatile organic compounds

- = no measurement
- < = not detected at indicated method detection limit

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Laboratory analyses were performed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
- 4. Cumulative mass removal amounts are calculated using an average removal rate and elapsed system operation time.
- 5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit,
- 6. The SVE system shut down on 21 June 2000 at approximately 5:30 PM. The system was not restarted during the reporting period.
- 7. For the 21 June 2000 removal rates, the analyte concentrations were estimated using the 18 May 2000 analytical data multiplied by a ratio of PID readings.
- 8. Extraction well SVE-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

# TABLE 3c Soil Vapor Extraction Data: Extraction Well SVE-2

Quarterly Progress Report for April through June 2000

	···	Elapsed	Fle	ow		Total	_	Concentr	-	ł	ted VOC	Cumulative Mass Removal		
Date	Time	Time on Hour Meter (hrs)	(acfm)	(scfm)	Vacuum (in-wc)	Vacuum VOCs by	1,1-DCE	Dry Analys	TCE (Applied)	TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs	
3/16/00	16:00	5.6	0.61	0.56	35	230	0.72 tr	1.2	75	0.021	0.021	0	0	
3/17/00	7:00	20.3	0.61	0.55	37	190	-	-	-	-	-	-	-	
3/18/00	6:30	44.7	0.61	0.55	38	33	•	-	-	-	-	-	-	
3/19/00	6:30	47.9	0.65	0.59	38	300	•	•	-	-	-	-	-	
3/20/00	6:30	72.2	0.94	0.84	43	240	-	-	-	-	-	-	-	
3/21/00	7:00	96.3	0.89	0.76	60	230	-	-	-	-	-	-	-	
3/22/00	7:30	120.5	0.57	0.55	15	93	-	-	-	-	-	-	-	
3/30/00	11:00	316.0	0.59	0.53	38	78	-	-	-	-	-	-	-	
			0.61	0.54	45	-	<u>-</u>	-	-	-	-	-	-	
4/6/00	11:00	483	0.74	0.51	125	38	-	-	-		-	-	-	
			1.53	1.0	140	- '	-	-	-	-	-	-	-	
4/13/00	8:00	648	2.5	1.6	150	26	-	-	-	-	-	-	-	
1			2.5	1.6	150	-	•	-	-	-	-	-	-	
4/20/00	7:30	815	1.1	0.71	145	5.4	-	-	-	-	-	-	-	
			2.3	1.5	150	-	-	-	-	-	-	-	-	
4/27/00	7:00	983	2.4	1.5	150	2.7	-	-	-	-	-	•	-	
			2.4	1.5	150	-	•	-	-	-	-	-	-	
5/4/00	8:30	1,152	2.3	1.5	150	5.8		-	-	-	-	-	-	
			2.3	1.5	150	-	-	-	•	-	-	-	-	
5/11/00	6:30	1,318	2.2	1.4	150	5.2	-	-	-	-	-	-	-	
			2.2	1.4	150	-	-	-	•	-	-	-	-	
5/18/00	7:00	1,486	2.2	1.4	150	13	<u>-</u>	-	-	-	-	-	-	
			2.0	1.3	150	-	-	-	-	-	-	-	-	
5/25/00	6:30	1,654	2.1	1.3	150	6.8	-	-	-	-	-	-	-	
			2.1	1.3	150	-	-	-	_	-	-	-	-	
6/1/00	6:30	1,822	2.1	1.3	150	28	-	-	-	-	-	-	-	
ļ			2.1	1.3	150	-	-	-	-	-	-	-	-	
6/8/00	7:00	1,990	2.1	1.3	155	42	-	-	-	-	-	-	-	
1			2.1	1.3	150	-	-	-	-	-	-	-	-	
6/15/00	7:30	2,158	2.1	1.3	150	38	-	-	-	-	-	-	-	
[			2.1	1.3	150	-	-	-	-	-	-	-	-	
6/21/00	17:30	2,312	2.1	1.3	150	38	-	-		0.0084	0.0087	1.4	1.4	

### TABLE 3c

## Soil Vapor Extraction Data: Extraction Well SVE-2

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

#### NOTES:

1,1-DCE = 1,1-dichloroethene PCE = tetrachloroethene TCE = trichloroethene acfm = actual cubic feet per minute

\*F = degrees Fahrenheit hrs = hours

in-wc = inches of water column Ib/day ≈ pounds per day

lbs = pounds

PID = photoionization detector ppmv = parts per million by volume scfm = standard cubic feet per minute tr = trace (concentration detected at less than reporting limit)

VOCs = volatile organic compounds

- = no measurement

< = not detected at indicated method detection limit

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Laboratory analyses were performed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
- 4. Cumulative mass removal amounts are calculated using an average removal rate and elapsed system operation time.
- 5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
- 6. The SVE system shut down on 21 June 2000 at approximately 5:30 PM. The system was not restarted during the reporting period.
- 7. For the 21 June 2000 removal rates, the analyte concentrations were estimated using the 18 May 2000 analytical data multiplied by a ratio of PID readings.
- 8. Extraction well SVE-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

TABLE 3d
Soil Vapor Extraction Data: Extraction Well SVE-3

Quarterly Progress Report for April through June 2000

Date		Elapsed	Flow			Total	•	Concentrory Analys	•		ted VOC	Cumulative Mass Removal		
	Time	Time on Hour Meter (hrs)	(acfm)	(scfm)	Vacuum (in-wc)	VOCs by PID (ppmv)	1,1-DCE	and S	TCE	TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs	
3/16/00	16:00	5.6	0.41	0.37	35	31	0.56	2.7	25	0.0047	0.0054	0	0	
3/17/00	7:00	20.3	0.98	0.89	37	6.1	-	-	_	_	- 1	_	_	
3/18/00	6:30	44.7	0.98	0.89	38	8.3	-	-	-	_	-	-	_	
3/19/00	6:30	47.9	0.98	0.89	38	45	•	_	_	_	- 1	-	_	
3/20/00	6:30	72.2	0.98	0.88	43	7.4	-	-	-	_	- 1	-	_	
3/21/00	7:00	96.3	1.0	0.85	60	11	-	-	_	-	-	•	-	
3/22/00	7:30	120.5	0.95	0.91	15	10	-	-	<b>-</b> .	_	-	_	_	
3/30/00	11:00	316.0	. 0.76	0.69	38	29	-	-	-	_	-	-	_	
			0.76	0.68	45	- 1	-	-	-	_	-	_	_	
4/6/00	11:00	483	1.55	1.1	125	25	-	-	_	_	_	-	_	
			2.31	1.5	140	-	_	-	_	_	- 1	_	_	
4/13/00	8:00	648	2.1	1.3	150	22	-		_	•	- 1	_	_	
			2.1	1.3	150	-	-	-	•	-	-	-	_	
4/20/00	7:30	815	1.7	1.1	145	6.8	•	-	_	-	_	_	_	
			2.4	1.5	150	-	-	-	_	_	-	_	_	
4/27/00	7:00	983	1.2	0.78	150	4.3	-		_	_	-	_	_	
			1.3	0.80	150		•		-	-	-	-	_	
5/4/00	8:30	1,152	1.6	0.98	150	2.8	_		-	-		-	_	
			1.6	0.98	150	-	_	•	-	-	-	_	_	
5/11/00	6:30	1.318	1.6	1.0	150	2.2	-		-	-	_		_	
		,	1.6	1.0	150	-	-	-	_	-	_	-	_	
5/18/00	7:00	1,486	1.6	0.98	150	9.0	-	-	-	-	-	-	_	
		·	1.6	0.98	150		-	-	-	•	_	-	_	
5/25/00	6:30	1,654	1.6	0.99	150	4.2	-	_	-		_	_	_	
			1.6	0.99	150	-	-	-,	-	-	-	-	_	
6/1/00	6:30	1,822	1.5	0.95	150	7.5	-	_	-	-	_	-	_	
		·	1.5	0.95	150	-	-	_	-	-	-	_	_	
6/8/00	7:00	1,990	1.4	0.88	155	5.2	-	_	_	-	.	_	_	
			1.2	0.77	150	-	-	-	-	•	_ [	-	_	
6/15/00	7:30	2,158	1.4	0.90	150	4.9	-	_	-	-	- 1	-	-	
		•	1.4	0.90	150	-	-	-	-	-	-	-		
6/21/00	17:30	2,312	1.4	0.90	150	4.9	-	•	- 1	0.0018	0.0020	0.31	0.36	

### **TABLE 3d**

## Soil Vapor Extraction Data: Extraction Well SVE-3

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

#### **NOTES:**

1,1-DCE = 1,1-dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
acfm = actual cubic feet per minute

°F = degrees Fahrenheit

hrs = hours

in-wc = inches of water column

lb/day = pounds per day

lbs = pounds

PID = photoionization detector ppmv = parts per million by volume

scfm = standard cubic feet per minute

tr = trace (concentration detected at less than reporting limit)

VOCs = volatile organic compounds

- = no measurement

< = not detected at indicated method detection limit

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Laboratory analyses were performed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
- 4. Cumulative mass removal amounts are calculated using an average removal rate and elapsed system operation time.
- 5. On days for which two flow and vacuum readings are provided, the values indicate initital and final readings during the site visit.
- 6. The SVE system shut down on 21 June 2000 at approximately 5:30 PM. The system was not restarted during the reporting period.
- 7. For the 21 June 2000 removal rates, the analyte concentrations were estimated using the 18 May 2000 analytical data multiplied by a ratio of PID readings.
- 8. Extraction well SVE-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

TABLE 3e
Soil Vapor Extraction Data: Extraction Well SVE-D1

Quarterly Progress Report for April through June 2000

Date		Elapsed Time on Hour Meter (hrs)	Flow			Total	Analyte Concentration by Laboratory Analysis (ppmv)							Estimated VOC Removal Rates		Cumulative Mass Removal	
	Time		(acfm)	(scfm)	Vacuum (in-wc)	VOCs by PID (ppmv)	Benzene	Carbon Disulfide	1,1-DCE	c-1,2-DCE	PCE	TCE	Toluene	TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)
3/16/00	16:00	5.6	2.7	2.7	6	1,600	<31	<32	<25	<25	16	1,000	<27	1.3	1.4	0	0
3/17/00	7:00	20.3	4.6	4.5	10	92	-	-	-	-	-	-	-	-	-	•	-
3/18/00	6:30	44.7	5.3	5.2	10	130	-	•	-	-	-	-	-	-	-	•	-
3/19/00	6:30	47.9	5.5	5.4	6	30	-	-	-	-	-	-	-	-	-	-	-
3/20/00	6:30	72.2	5.8	5.7	9	160	-	-	-	-	-	-	-	-	-	-	-
3/21/00	7:00	96.3	2.6	2.6	7	560	-	-	-	-	-	-	•	-	-	-	-
3/22/00	7:30	120.5	8.9	8.6	15	70	<6.3	<6.4	11	<5.0	6.4	440	3.2 tr	1.9	2.0	7.7	7.9
3/30/00	11:00	316.0	24	22	38	36	-	-	-	-	-	-	-	-	-	-	-
			29	26	45	` -	-	-	-	-	-	-	-	-	-	-	-
4/6/00	11:00	483	25	17	125	30	-	-	-	-	-	-	-	-	-	-	-
			25	16	140	-	-	-	-	-	-	-	-	-	-	-	-
4/13/00	8:00	648	33	21	150	33	<0.78	1.2	0.99	0.87	0.28 tr	25	0.40 tr	0.26	0.28	31	33
			33	21	150	-	-	-	-	•	•	-	-	0.26	0.28	-	-
4/20/00	7:30	815	28	18	145	28	-	-	-	-		•	-	-	-	-	-
			13	10	100	-	-	-	-	-	-	-	-	-	-	•	-
4/27/00	7:00	983	18	16	40	25	-	-	-	-	-	-	-	-	-	-	-
			47	35	100	-	-	-	-	-	•	-	-	-	-	-	-
5/4/00	8:30	1,152	16	10	135	20	-	-	-	-	-	-	-	-	-	-	•
			9.5	7.2	100	-	-	-	-	-	-	-	-	-	-	•	•
5/11/00	6:30	1,318	13	9.7	95	13	-	-	-	-	-	-	-	-	-	-	-
			10	7.8	95	-	-	-	-	-	-	-	-	-	-	-	-
5/18/00	7:00	1,486	20	14	120	37	0.19 tr	<0.32	0.30	0.30	0.57	8.6	<0.27	0.061	0.070	37	39
			26	17	150	-	-	-	-	-	-	-	-	0.071	0.081	-	-
5/25/00	6:30	1,654	18	11	150	16	-	-	-	-	-	-	-	-	-	•	•
			18	11	150	-	-	-	-	-	-	-	-	-		-	-
6/1/00	6:30	1,822	16	10	150	31	-	-	-	-	-	-	-	-	-	-	-
1			16	10	150	-	-	-	-	-	_	-	-	-	-	•	-
6/8/00	7:00	1,990	21	13	155	31	-	-	-	-	-	-	•	-	-	-	-
			21	13	150	-	-	-	-	-	-	-	-	-		-	-
6/15/00	7:30	2,158	21	13	150	31	-	-	-	-	-	-	-	-	-	-	-
			21	13	150	-	-	-	-	-	-	-	-	-	-	-	-
6/21/00	17:30	2,312	21	13	150	31								0.061	0.071	39	41

### **TABLE 3e**

## Soil Vapor Extraction Data: Extraction Well SVE-D1

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

#### NOTES:

1,1-DCE = 1,1-dichloroethene

c-1,2-DCE = cis-1,2-dichloroethene

PCE = tetrachloroethene

TCE = trichloroethene

acfm = actual cubic feet per minute

°F = degrees Fahrenheit

hrs = hours

in-wc = inches of water column

lb/day = pounds per day

lbs = pounds

PID = photoionization detector

ppmv = parts per million by volume

scfm = standard cubic feet per minute

tr = trace (concentration detected at less than reporting limit)

VOCs = volatile organic compounds

- = no measurement

< = not detected at indicated method detection limit

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Laboratory analyses were performed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
- 4. Cumulative mass removal amounts are calculated using an average removal rate and elapsed system operation time.
- 5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings dusirng the site visit.
- 6. The SVE system shut down on 21 June 2000 at approximately 5:30 PM. The system was not restarted during the reporting period.
- 7. For the 21 June 2000 removal rates, the analyte concentrations were estimated using the 18 May 2000 analytical data multiplied by a ratio of PID readings.
- 8. Extraction well SVE-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

# TABLE 4 Field Data for Soil Vapor Monitoring Probes

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

	VN	1P-1	VA	/IP-2	VM	P-D1	VMP-D2		
Date	Vacuum	Total VOCs by PID (1,2)	Vacuum	Total VOCs by PID (1,2)	Vacuum	Total VOCs by PID (1,3)	Vacuum	Total VOCs by PID (1,3)	
	(in-wc)	(ppmv)	(in-wc)	(ppmv)	(in-wc)	(ppmv)	(in-wc)	(ppmv)	
3/16/00	-	68	-	150	-	530	_	71	
3/17/00	1.8	-	1.0	-	4.7	-	5.2	-	
3/18/00	1.3	-	1.1	-	6.6	-	6.0	-	
3/19/00	1.1	-	0.7	-	2.2	-	2.4	-	
3/20/00	2.1	-	1.4	-	2.6	-	3.5	-	
3/21/00	2.4	-	2.2	-	5.4	-	6.8	-	
3/22/00	2.6	-	2.3	-	5.8	-	4.5	-	
3/30/00	1.8	-	1.8	-	15	-	16	-	
4/6/00	2.8	6.4	4.2	7.4	23	3.5	24	150	
4/13/00	4.0	8.2	2.5	6.2	21	23	22	27	
5/11/00	4.6	-	4.0	-	19	-	16	-	
5/18/00	3.2	-	3.4	-	17	-	18	-	
3/10/00	3.8	-	2.7	-	21	-	22	-	

**NOTES:** 

in-wc = inches of water column

PID = photoionization detector

ppmv = parts per million by volume

VOCs = volatile organic compounds

- = no measurement

- 1. PID calibrated with 100 ppmv of isobutylene.
- 2. Each shallow vapor monitoring probe was purged of approximately 5 to 7 cubic feet of vapor and then sampled and analyzed using a PID.
- 3. Each deep vapor monitoring probe was purged of approximately 50 to 65 cubic feet of vapor and then sampled and analyzed using a PID.
- 4. On days for which two vacuum and PID readings are provided, the values indicate initial and final readings during the site visit.
- 5. Soil vapor monitoring probes VMP-1 and VMP-2 are screened in the shallow vadose zone from approximately 19 to 25 feet beneath the ground surface.
- 6. Soil vapor monitoring probes VMP-D1 and VMP-D2 are screened in the deep vadose zone from approximately 30 to 40 and 31 to 41 feet beneath the ground surface, respectively.

# TABLE 5 Summary of Laboratory Analytical Data for Soil Vapor Samples

Quarterly Progress Report for April through June 2000

		Analyte Concentration (ppmv)												
Location	Date	Acetone	Benzene	Carbon Disulfide	1,1-DCE	c-1,2-DCE	MC	MEK	PCE	1,1,1-TCA	TCE	Toluene		
Blower Influent	3/16/00	<21	<16	<16	8.2 tr	<13	<14	<17	19	<9.2	860	49		
	3/22/00	<8.4	<6.3	<6.5	<5.0	<5.0	<5.8	<6.8	11	3.0 tr	490	3.9 tr		
	4/13/00	<2.1	<1.6	7.7	0.76 tr	<1.3	0.91 tr	0.90 tr	1.2	<0.92	70	2.1		
	DUP	<2.1	<1.6	8.5	0.72 tr	<1.3	<1.4	<1.7	1.1	<0.92	65	1.8		
	5/18/00	<2.1	<1.6	<1.6	<1.3	<1.3	<1.5	<1.7	2.2	<0.93	53	<1.3		
SVE-1	3/16/00	<210	<160	<160	<130	<130	<140	<170	230	53 tr	10,000	170		
	3/22/00	<84	<63	<64	<50	<50	<58	<68	140	43	10,000	42 tr		
}	4/13/00	<210	<160	<160	<130	<130	<140	<170	120	<92	6,500	<130		
	5/18/00	<17	<13	<13	<10	<10	<12	<14	94	7.3 tr	3,700	<11		
SVE-2	3/16/00	<1.7	<1.3	<1.3	0.72 tr	<1.0	<1.2	<1.4	1.2	<0.73	75	<1.1		
	DUP	<1.7	<1.3	<1.3	0.80 tr	<1.0	<1.2	<1.4	1.5	<0.73	96	1.3		
SVE-3	3/16/00	<0.84	<0.63	<0.64	0.56	<0.50	<0.58	<0.68	2.7	<0.37	25	<0.53		
SVE-D1	3/16/00	<42	<31	<32	<25	<25	<29	<34	16	<18	1,000	<27		
	3/22/00	<8.4	<6.3	<6.4	11	<5.0	<5.8	<6.8	6.4	<3.7	440	3.2 tr		
i	4/13/00	<1.1	<0.78	1.2	0.99	0.87	<0.72	<0.85	0.28 tr	<0.46	25	0.40 tr		
	5/18/00	<0.42	0.19 tr	<0.32	0.30	0.30	<0.29	<0.34	0.57	<0.19	8.6	<0.27		
VMP-1	3/16/00	<0.84	<0.63	<0.64	0.58	<0.50	<0.58	<0.68	1.0	<0.37	29	<0.53		
VMP-2	3/16/00	<1.7	<1.3	<1.3	<1.0	<1.0	<1.2	<1.4	2.0	<0.73	43	1.5		
VMP-D1	3/16/00	<17	<13	<13	5.8 tr	<10	<12	<14	8.3	<7.3	460	11		
VMP-D2	3/16/00	<0.84	<0.63	<0.64	1.2	<0.50	<0.58	<0.68	0.75	<0.37	39	0.83		
Primary Influent	3/16/00	<0.42	<0.31	<0.32	0.19 tr	<0.25	<0.29	<0.34	0.46	<0.18	18	1.4		
Secondary Effluent	3/16/00	0.0039	<1.6	<0.0016	<0.0013	<0.0013	<0.0014	<0.0017	<0.00074	<0.00092	<0.00093	0.00094 tr		
Equipment Blank	3/16/00	<0.042	<31	<0.032	<0.025	<0.0025	<0.029	<0.034	0.064	<0.018	1.7	<0.027		

#### TABLE 5

### Summary of Laboratory Analytical Data for Soil Vapor Samples

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

NOTES:

c-1.2-DCE = cis-1.2,-dichloroethene

1,1-DCE = 1,1-dichloroethene

MC = methylene chloride

MEK = methyl ethyl ketone

PCE = tetrachloroethene

1.1.1-TCA = 1.1.1-trichloroethane

TCE = trichloroethene

DUP = duplicate sample

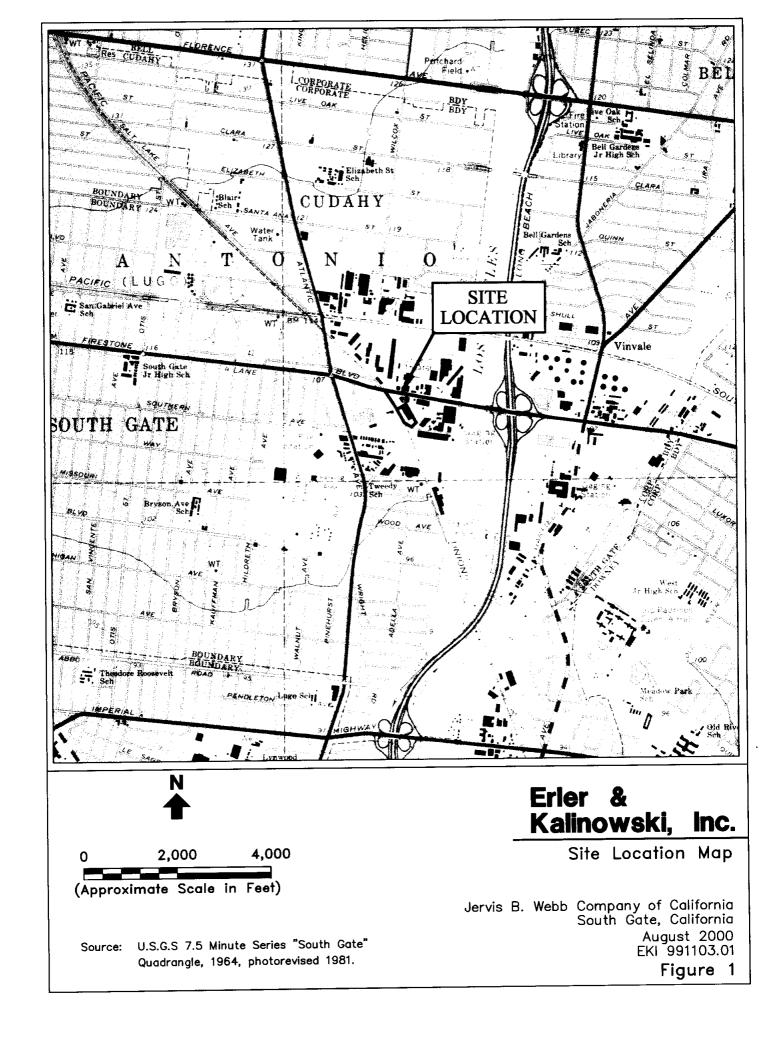
ppmv = parts per million by volume

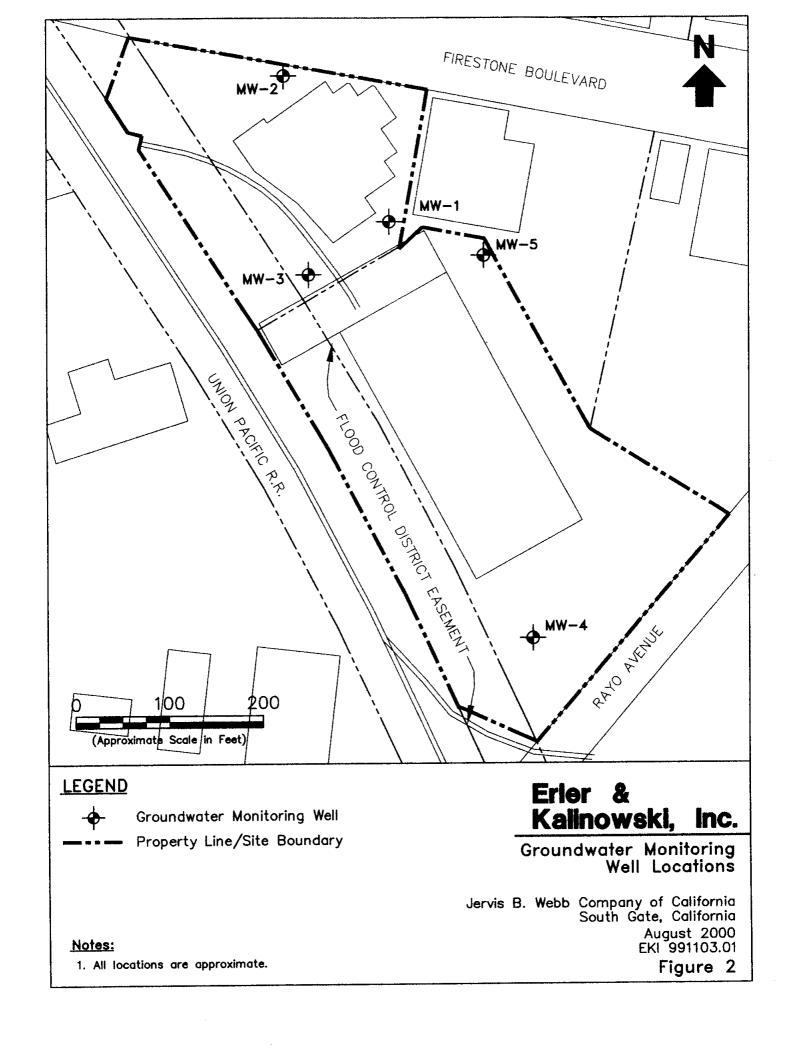
tr = trace (concentration detected at less than method detection limit)

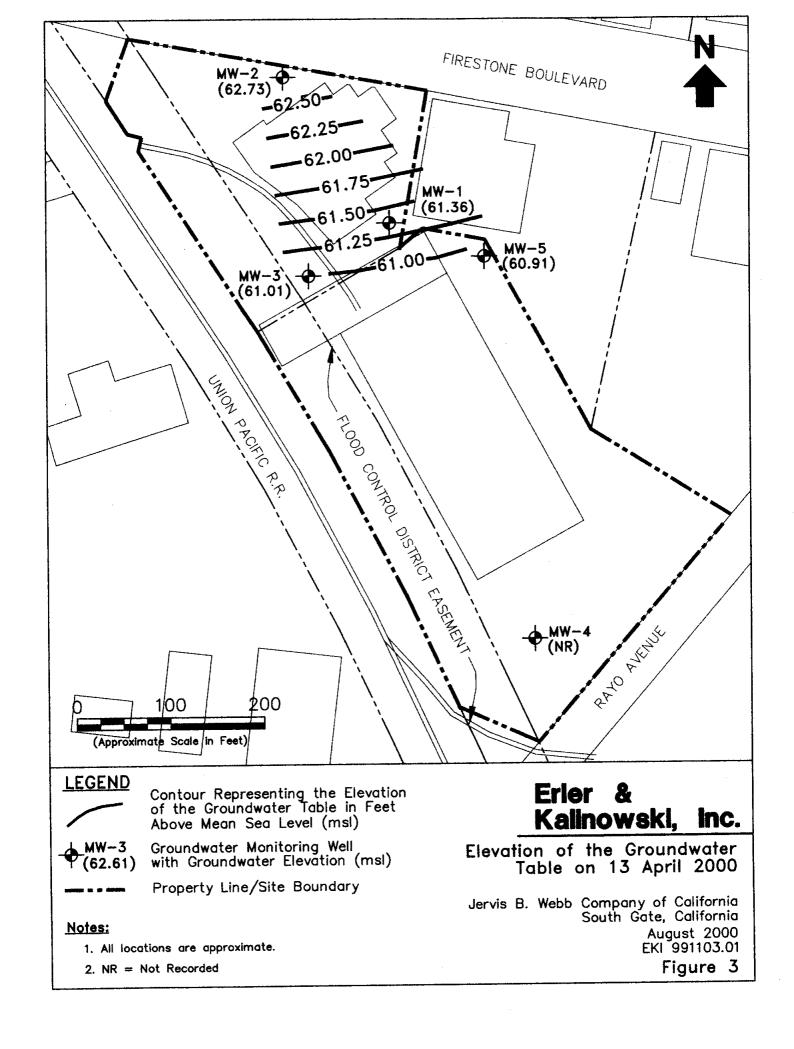
- = no measurement

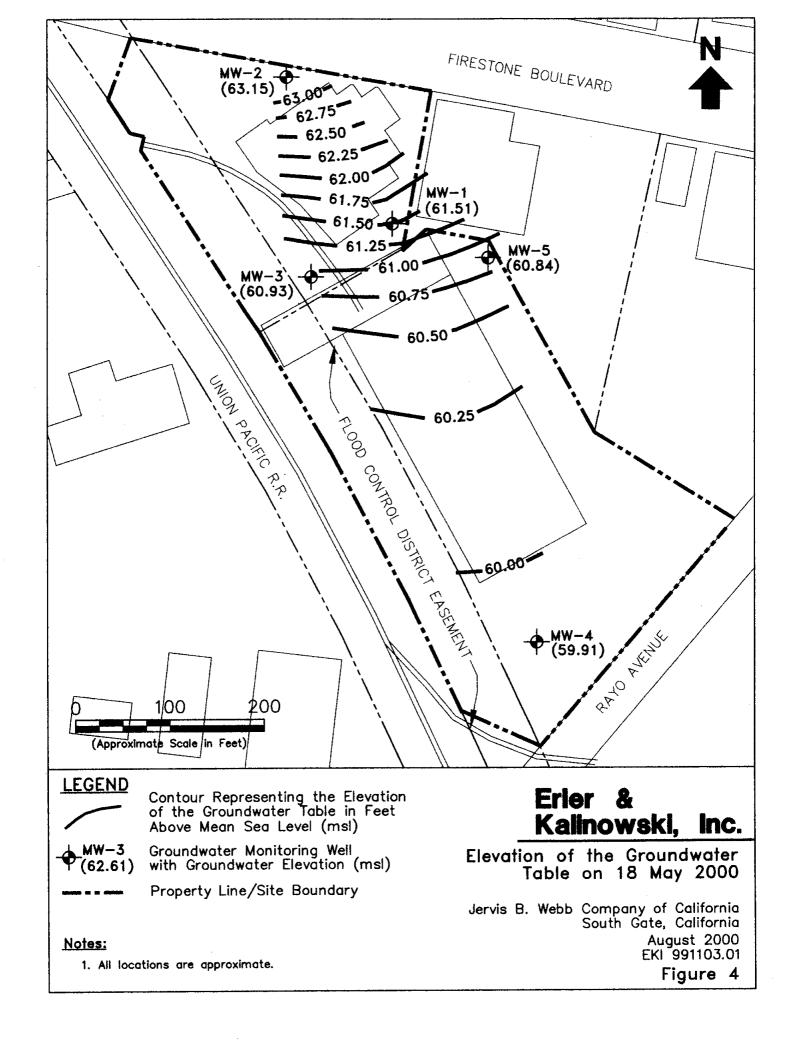
< = not detected at indicated method detection limit

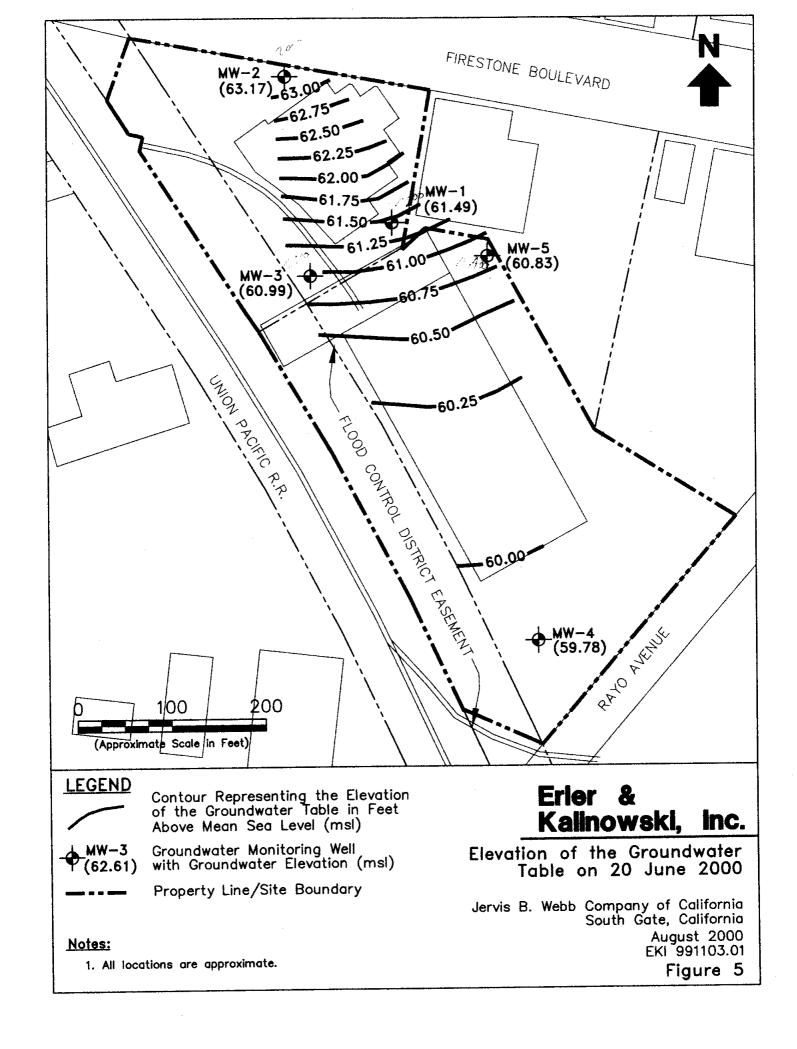
- 1. Samples were collected in Tedlar bags and analyzed by Performance Analytical, Inc., in Simi Valley, California, using EPA Method TO-14A.
- 2. The Primary Influent sample was collected from the sampling port located immediately before the first carbon vessel (see Figure 7).
- 3. The Secondary Effluent sample was collected from the sampling port located immediately after the second carbon vessel (see Figure 7).

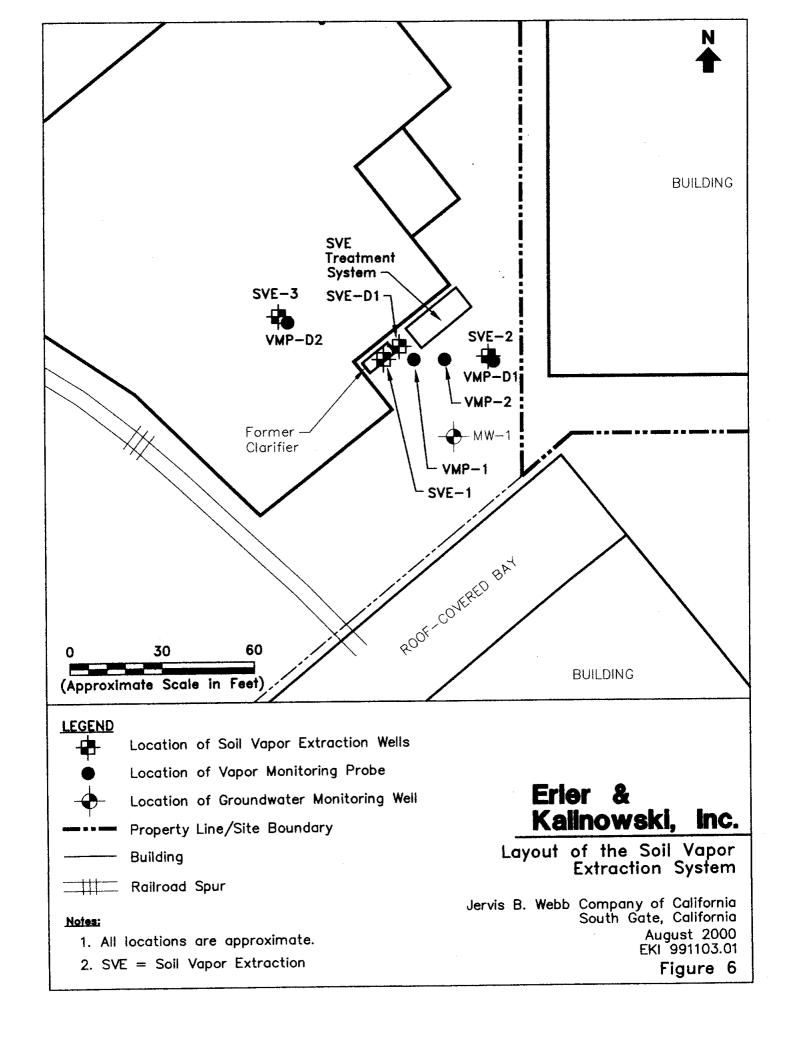




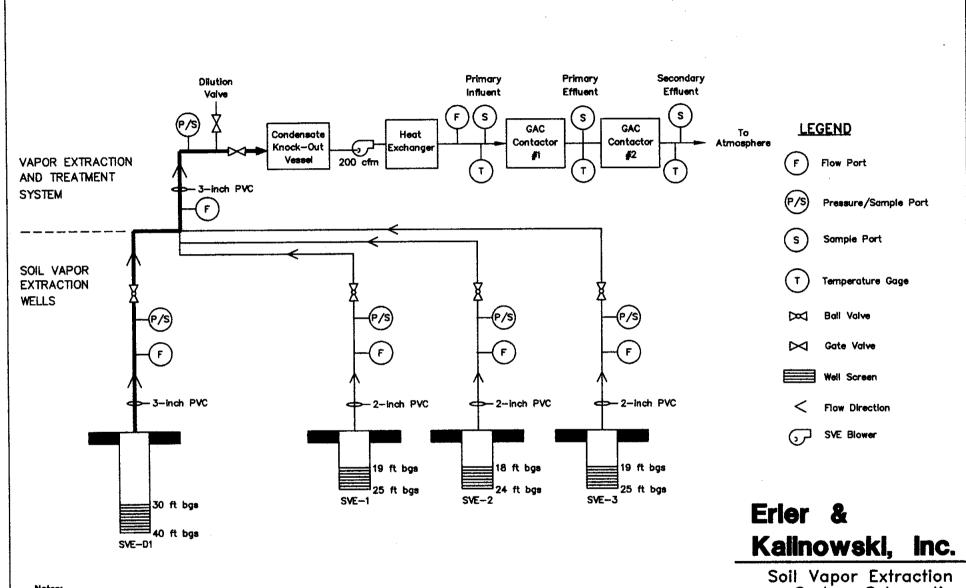












#### Notes:

- 1. Not to scale.
- 2. Pressure/Sampling Ports are 1/4" hose barbs.
- 3. Abbreviations:

cfm = cubic feet per minute ft bgs = feet below ground surface GAC = granular activated carbon SVE = soil vapor extraction

Soil Vapor Extraction System Schematic

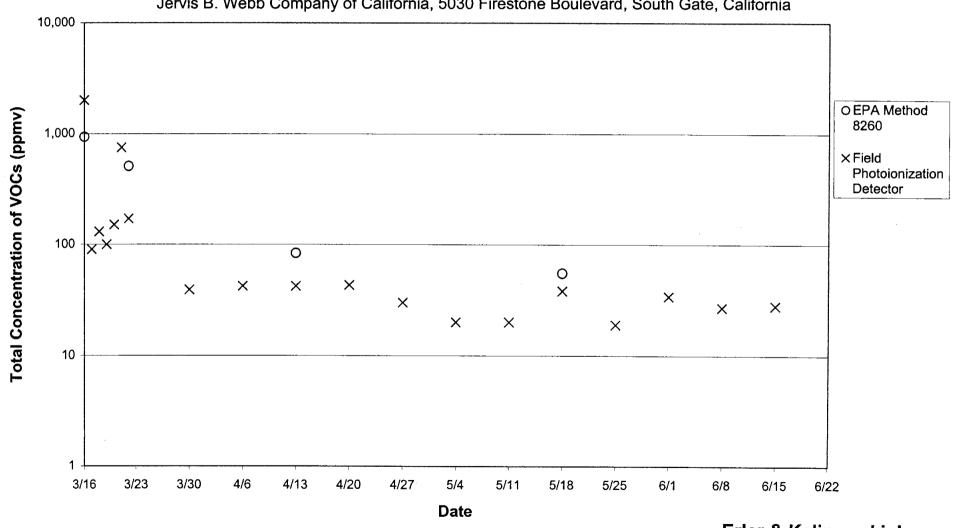
Jervis B. Webb Company of California South Gate, California August 2000 EKI 991103.01

Figure 7

# FIGURE 8a Concentrations of Total VOCs versus Time: Blower Influent

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



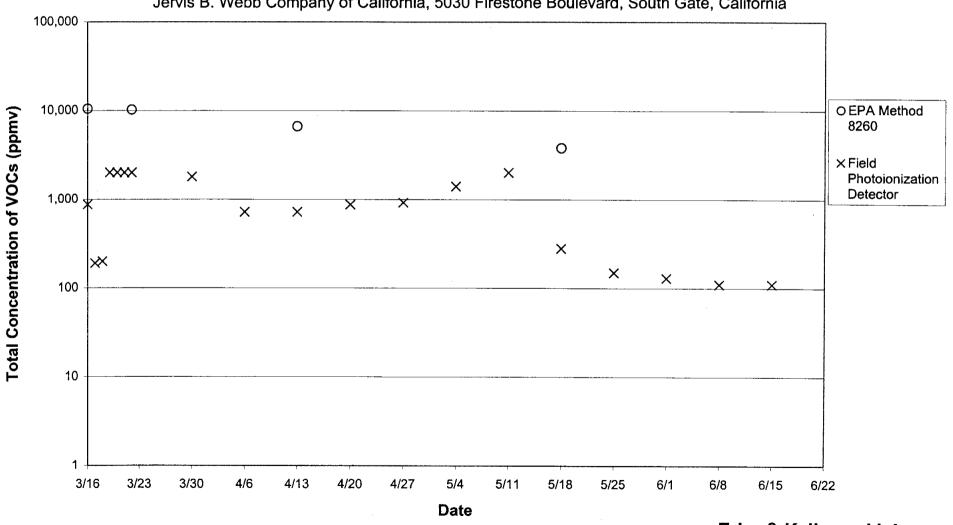
Erler & Kalinowski, Inc.

### FIGURE 8b

## Total Concentrations of VOCs versus Time: Extraction Well SVE-1

Quarterly Progress Report for April through June 2000

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

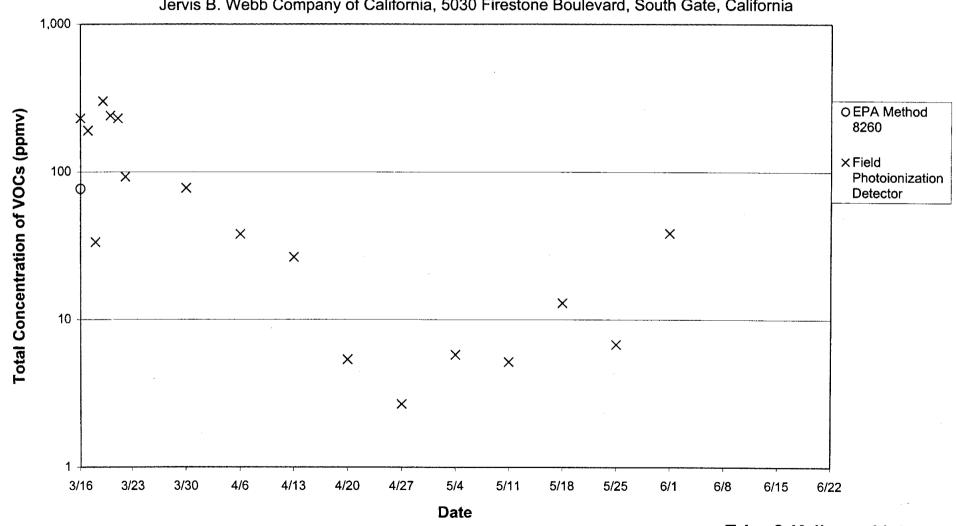


Erler & Kalinowski, Inc.

# FIGURE 8c Concentrations of Total VOCs versus Time: Extraction Well SVE-2

Quarterly Progress Report for April through June 2000

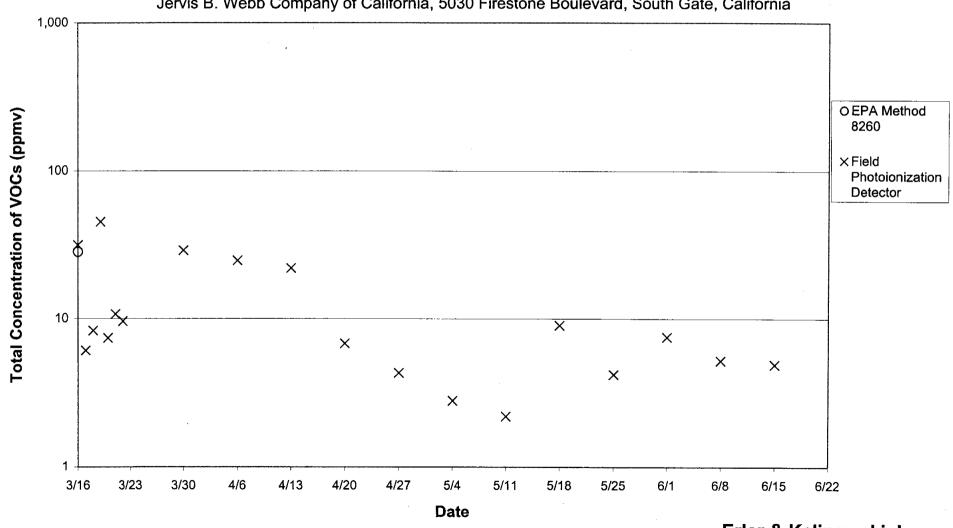
Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



# FIGURE 8d Concentrations of Total VOCs versus Time: Extraction Well SVE-3

Quarterly Progress Report for April through June 2000

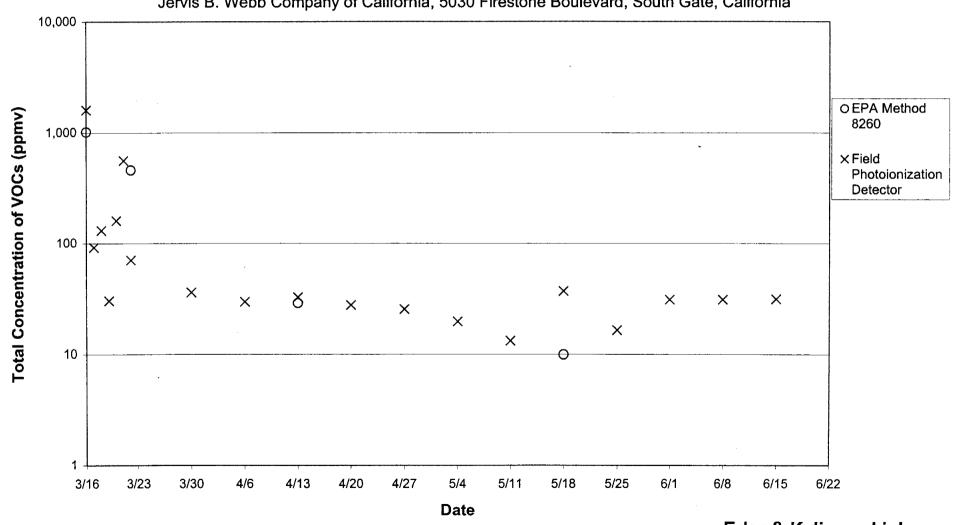
Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



# FIGURE 8e Concentrations of Total VOCs versus Time: Extraction Well SVE-D1

Quarterly Progress Report for April through June 2000

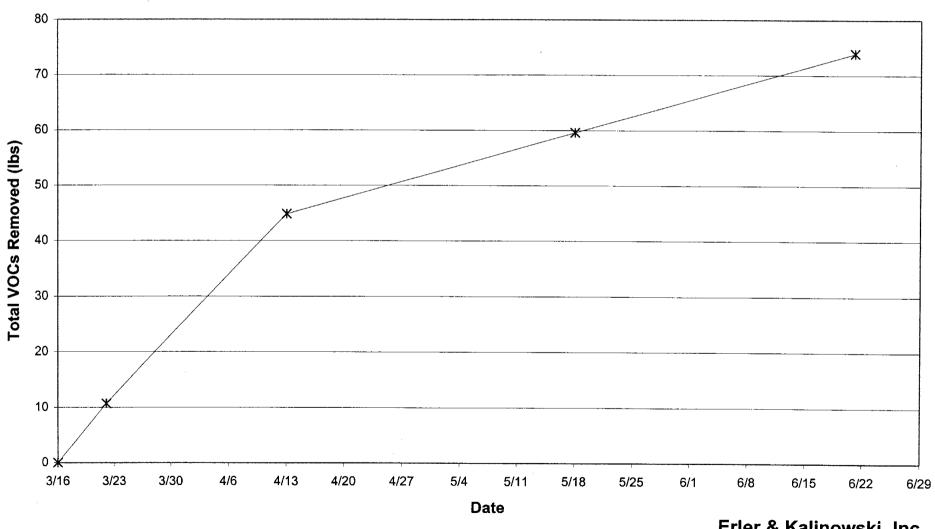
Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



Erler & Kalinowski, Inc.

### FIGURE 9 **Cumulative VOC Removal**

Quarterly Progress Report for April through June 2000 Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



Erler & Kalinowski, Inc.

#### **APPENDIX A**

**Groundwater Purge and Water Quality Monitoring Forms for Groundwater Sampling** 

DATE: 6/20/00 PROJECT NAME: WEBB PROJECT NUMBER: 991103.01 WELL NUMBER: ML1 >1 PERSONNEL: BY WELL VOLUME CALCULATION: Water Multiplier Casing Vol. Depth of Depth to Column (ft.) (below) Well (ft.) (gallons) Water (ft.) 25,70 16.54 0.64 70.30-Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft. INSTRUMENT CALIBRATION No. of bailers prior to start of purge: --Standard Instrument measure measure PURGE METHOD: 2" GRUNDFOS Conductivity ρН PURGE DEPTH: 67 SEE MW-4 рH END TIME: 13:37 Turbidity START TIME: 13:12 Temperature TOTAL GALLONS PURGED: 52 Deoth Probe Time 13:25 13:29 13:35 (3:36 13:16 13:33 13:21 13:27 Volume Purged (gallons) 5048 50 30 35 40 45 10 20 Temperature (degrees F or C) 749 76.0 76.9 76,5 76.2 77.1 79.4 76.8 pH (units) 7.29 7.28 7.29 7.51 7.42 7.36 7.30 7.30 Specific Conductivity (uS/cm) 3,080 3,080 2,600 2,340 2,830 3,030 1,200 1,710 Turbidity/Color (NTU) 5.17 0.39 258 0.83 0.80 1.01 4.44 23.6 Ogor NOME Depth to Water (It below TOC) during purge Number of Casing Volumes removed Purge Rate (gailons/minute) 1232 Analyses Requested Containers & Preservation COMMENTS/ Time Collected Field I.D. 2 YOML VOAS W/ HCI **82**60 SAMPLES: MW-1 13:45

## GROUNDWATER PURGE AND WATER QUALITY MONITORING FORM

DATE: 6/20/00 PROJECT NAME: WEBB PERSONNEL: BJA PROJECT NUMBER: 991103.01 WELL NUMBER: MW-2 WELL VOLUME CALCULATION: Depth of Depth to Water Multiplier Casing Vol. 70.12 Column (ft.) (below) Well (ft.) Water (fL) (gallons) 26.64 17.0 0.64 Mult, for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft. INSTRUMENT CALIBRATIC No. of bailers prior to start of purge: Field Standard Instrument measure measure PURGE METHOD: 2" GRUNDE OS Conductivity PURGE DEPTH: 67 рΗ SEE MW-4 pН START TIME: END TIME: Turbidity 10:59 9:35 Temperature TOTAL GALLONS PURGED: 51 Depth Probe Time 9:50 10:20 10:42 10:59 10:05 10:32 0:50 Volume Purged (gallons) 15 43 51 22 38 47 30 Temperature (degrees F or C) 72.8 74.3 79.7 81.6 77.6 78.6 81.7 pH (units) 7.27 7.25 7.**3**3 7.36 7.36 7.35 7.26 Specific Conductivity (uS/cm) 2,000 4840 2,110 2,110 2,110 1,960 2,070 Turbidity/Color (NTU) 4.91 1.88 87.7 12.4 3.98 47.8 2.07 Odor NONE Depth to Water (ft below TOC) during purge Number of Casing Volumes removed Purge Rate (gallons/minute) 0.6 Analyses Requested COMMENTS/ Time Collected Containers & Preservation Field I.D. 2x40 Mc VO9 WHCI 8260 11:05 SAMPLES: MW-2

DATE: 6/20/00 PROJECT NAME: WEBB WELL NUMBER: MW-3 PERSONNEL: B. JA PROJECT NUMBER: 991103-01 WELL VOLUME CALCULATION: Multiplier Depth of Water Casing Vol (below) Well (ft.) Water (ft.) Column (ft.) (gallons) 16.4 44.88 70,50 25.62 0.64 Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft. INSTRUMENT CALIBRATION No. of bailers prior to start of purge: Field Standard Instrument measure measure PURGE METHOD: 2" GRUNDEOS Conductivity PURGE DEPTH: 671 рΗ SEE MW-4 pН 11:19 END TIME: 11:45 START TIME: Turbidity Temperature TOTAL GALLONS PURGED: 52 Depth Probe Time 11:42 11:45 11:26 11:31 11:34 111:39 11:36 Volume Purged (gallons) 30 45 50 25 40 15 35 Temperature (degrees F or C) 75.5 82.3 79.0 76.3 75.7 75.5 75.5 pH (units) 7.45 7.45 7.46 7,42 7.45 7.41 7.44 Specific Conductivity (uS/cm) 1,340 1,540 1,580 4610 1,390 1,490 1,440 Turbidity/Color (NTU) 3.17 16.7 6.36 175 18.9 *55.5* 31.1 NOME Depth to Water (ft below TOC) during purge Number of Casing Volumes removed Purge Rate (gallons/minute) 11.3 1.7 Analyses Requested Containers & Preservation COMMENTS/ Time Collected Field I.D. 2x40 Mc UDAWHA 8260 11:50 Mw-3 SAMPLES: 2 x40 Mc VOA WHOI 8260 11:55 MW-3-DUP

PROJECT NAME: WEBB						DA	TE: 6/2	0/00	·-···
PROJECT NUMBER: 991103	.01	WELL N	NUMBER:	Μ	ا - لها	∤ PE	RSONNEL	ALB :	
WELL VOLUME CALCULATION:		<u> </u>	<del></del>	<u> </u>		<del></del>			
Depth of Depth to			Water		,	Multiplier			Casing V
Well (ft.) Water (i	t) III a. I		Column (f	t.)		(below)			(gallon
69.42 -	44.94	=	24.4	8	*	0.64	=		5.7
Mult. for casing diam. = 2-in.=0.16; 4-in.=	0.64: 5-in.=1.02:	6-in.=1.44 c				0,69		×3= (	_
That is cooning them.	,				INST	RUMENT	CALIBRA		$\mathcal{D}_{-}$
No. of ballons pains to start of pura	o: -					TOMENT		11014	Ct = . t :
No. of bailers prior to start of purg	EO						Field		Standa
					Instrun	nent	meas	ure	measu
PURGE METHOD: Z" GRUND	Fas	•					100	<b>3</b> 0	10 <b>0</b> 0
					Condu	ctivity	10.0		10
PURGE DEPTH: 66'					рH		7.0	00	7.00
1.01.01.01. M. P.		_			pH .		3.9		
	EUD TIL	45. O.			ľ		٠.٠		4.01
START TIME: 8:34	END HW	ME: 9:0	2		Turbidi	ty	[0.0	>5	10
					Tempe	rature			
TOTAL GALLONS PURGED: .	50				Depth I	Probe			
Time	<b>a</b>		4.				<i>a</i> .		
	8:41	8:45	8:51	8	:58	9:04	9:11		
Volume Purged (gallons)			3.5		, _	1,40	<i>C</i> •		
	. 10	1817	25	2	35	40	50		
Temperature (degrees F or C)	70.9	70.9	190	1	9.2	70.0	69.7		
	70.9	70.9	68.9	4	1.2	70.0	0 (. 1		<u> </u>
pH (units)	6.90	6.99	7.00	1 2	01	7.02	7.02		
Specific Conductivity (uS/cm)	0.70	6.19	7.00	7		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Specific Conductivity (descrit)	3,600	2.390	2,480	2	480	2,500	2,470		
Turbidity/Color (NTU)		1	-110				-/ 11 -		<u> </u>
Tarbially, Color (TTTC)	52.3	26.5	12.9	5.	66	2.64	1.98	'	
Odor	<del> </del>			_					i
	HONE								
Depth to Water (it below TOC)									
during purge									
Number of Casing									
Volumes removed									
Purge Rate (gallons/minute)									
	1.5		<u> </u>						
COMMENTS/ Field I.D.	Time Collecte		Containers			_	Analyses Re		
SAMPLES: MW-4	9:20		2×40ML	- W	/HC	ı	8260	9	
•									
	. <u>.                                   </u>					<del></del>			

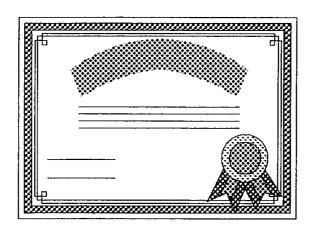
DATE: 6/20/00 PROJECT NAME: WEBB PROJECT NUMBER: 991103.01 WELL NUMBER: MW-5 PERSONNEL: BJA WELL VOLUME CALCULATION: Multiplier Depth of Water Casing Vol. Water (fL) Well (ft.) Column (ft.) (below) (gallons) 69.30 - 45.30 24.00 0.64 Mult, for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft. INSTRUMENT CALIBRATION No. of bailers prior to start of purge: O Field Standard Instrument measure measure PURGE METHOD: Z" GRUNDFOS Conductivity PURGE DEPTH: 66 рΗ SEE MWY рΗ START TIME: 12:24 END TIME: 12:48 Turbidity Temperature 50 TOTAL GALLONS PURGED: Depth Probe Time 12:42/12:45 12:29 12:33 12:48 12:39 Volume Purged (gallons) 40 50 32 45 10 20 Temperature (degrees F or C) 77.2 76.5 76.8 77.1 77.6 76.9 pH (units) 7.27 7.27 7.23 7.22 7.27 7.26 Specific Conductivity (uS/cm) 2,580 2,680 2,780 2,830 2,790 2,850 Turbidity/Color (NTU) 1.45 0.94 5.95 2,75 1.49 12.9 NONE Depth to Water (ft below TOC) during purge Number of Casing Valumes removed Purge Rate (gallons/minute) ~2 Analyses Requested Containers & Preservation COMMENTS/ Time Collected Field I.D. 8260 2x40mi VOAs WHO MW-5 12:50 SAMPLES:

#### **APPENDIX B**

**Laboratory Reports and Chain-of-Custody Forms** for Groundwater Sampling



3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067 4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970



## RECEIVED

JUL 1 1 2000

ERLER & BALLMOWSKI, INC. SANTA MONICA OFFICE

#### ORANGE COAST ANALYTICAL THANKS YOU FOR YOUR BUSINESS

THE FOLLOWING PAGES ARE THE ANALYSIS REPORT

ON THE SAMPLES YOU REQUESTED.

IF YOU HAVE ANY QUESTIONS REGARDING THIS REPORT

PLEASE FEEL FREE TO CONTACT US.

#### LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address:

3002 Dow Suite 532 Tustin, CA 92780

Telephone:

(714) 832-0064

**Laboratory Certification** 

(ELAP) No.:

<u>1416</u>

**Expiration Date:** 

2001

Laboratory Director's Name (Print):

Mark Noorani

Mark Mosani

Client:

Erler & Kalinowski, Inc.

Project No.:

991103.01

Project Name:

Webb

Laboratory Reference: EKI 11585

Analytical Method: EPA 8260

Date Sampled:

06/20/00

Date Received:

06/20/00

Date Reported:

07/07/00

Sample Matrix:

Water

Chain of Custody Received:

Yes

Laboratory Director's Signature:

## #

#### ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067 4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

#### ANALYTICAL TEST RESULTS 8260 Reporting Unit: ug/l

DATE ANALYZED		06/26/00	06/26/00	06/26/00	06/26/00
DILUTION FACTOR		1	200	20	20
LAB SAMPLE I.D.			00060117	00060118	00060119
CLIENT SAMPLE I.D.			MW-1	MW-2	MW-3
COMPOUND	MDL	MB			
	2.0	<2.0	<400	<40	<40
Acetone	0.5	<0.5	<100	<10	<10
Benzene		<0.5	<100	<10	<10
Bromodichloromethane	0.5	<0.5	<100	<10	<10
Bromoform	0.5		<200	<20	<20
Bromomethane	1.0	<1.0		<20	<20
2-Butanone	1.0	<1.0	<200		<10
Carbon Disulfide	0.5	<0.5	<100	<10	<10
Carbon Tetrachloride	0.5	<0.5	<100	<10 <10	<10
Chlorobenzene	0.5	<0.5	<100	<10	<10
Chlorodibromomethane	0.5	< 0.5	<100		<10
Chloroethane	0.5	<0.5	<100	<10	
2-Chloroethyl vinyl ether	1.0	<1.0	<200	<20	<20
Chloroform	0.5	<0.5	<100	<10	<10
Chloromethane	0.5	<0.5	<100	<10	<10
1,1-Dichloroethane	0.5	< 0.5	<100	<10	10
1,2-Dichloroethane	0.5	<0.5	<100	<10	<10
1,1-Dichloroethene	0.5	<0.5	<100	<10	<10
cis-1,2-Dichloroethene	0.5	<0.5	<100	46	170
trans-1,2-Dichloroethene	0.5	<0.5	<100	<10	14
1,2-Dichloropropane	0.5	<0.5	<100	<10	<10
cis-1,3-Dichloropropene	0.5	<0.5	<100	<10	<10
trans-1,3-Dichloropropene	0.5	<0.5	<100	<10	<10
Ethylbenzene	0.5	<0.5	<100	<10	<10
2-Hexanone	1.0	<1.0	<200	<20	<20
Methylene chloride	2.5	<2.5	<500	<50	<50
4-Methyl-2-pentanone	1.0	<1.0	<200	<20	<20
Styrene	0.5	<0.5	<100	<10	<10
1,1,2,2-Tetrachloroethane	0.5	<0.5	<100	<10	<10
Tetrachloroethene	0.5	<0.5	<100	<10	<10
Toluene	0.5	<0.5	<100	<10	<10_
1,1,1-Trichloroethane	0.5	<0.5	<100	<10	<10
1,1,2-Trichloroethane	0.5	<0.5	<100	<10	<10
Trichloroethene	0.5	<0.5	24,000	2,000	1,900
Trichlorofluoromethane	0.5	<0.5	<100	<10	<10
Vinyl acetate	1.0	<1.0	<200	<20_	<20
Vinyl Chloride	0.5	<0.5	<100	<10	<10
Total Xylenes	0.5	<0.5	<100	<10	<10
CDV	A CD0/	MR	1	Τ	

SURROGATE	SPK	ACP%	MB			
RECOVERY	CONC		%RC			
Dibromofluoromethane	50	80-120%	87	88	91	92
Toluene-d8	50	81-132%	93	95	95	97
4-Bromofluorobenzene	50	83-132%	107	111	111	113



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#### ANALYTICAL TEST RESULTS 8260 Reporting Unit: ug/l

DATE ANALY	YZED		06/26/00	06/26/00	06/26/00	06/26/00
DILUTION FA			1	50	20	1
LAB SAMPLI	E I.D.		00060120	00060121	00060123	00060124
CLIENT SAM	PLE I.D.		MW-4	MW-5	MW-3-DUP	Rinsate Blank
COMPOUND		MDL				
Acetone		2.0	<2.0 <100		<40	100
Benzene		0.5	<2.0	<25	<10	<0.5
Bromodichloromethane		0.5	<0.5	<25	<10	<0.5
Bromoform		0.5	<0.5	<25	<10	2.1
Bromomethane		1.0	<1.0	<50	<20	<1.0
2-Butanone		1.0	<1.0	<50	<20	5.8
Carbon Disulfide		0.5	<0.5	<25	<10	<0.5
Carbon Tetrachloride		0.5	<0.5	<25	<10	<0.5
Chlorobenzene		0.5	<0.5	<25	<10	<0.5
Chlorodibromomethane		0.5	<0.5	<25	<10	<0.5
Chloroethane		0.5	<0.5	<25	<10	<0.5
2-Chloroethyl vinyl ether		1.0	<1.0	<50	<20	<1.0
Chloroform		0.5	<0.5	<25	<10	3.0
Chloromethane		0.5	<0.5	<25	<10	<0.5
1,1-Dichloroethane		0.5	<0.5	<25	11	<0.5
1,2-Dichloroethane		0.5	<0.5	<25	<10	<0.5
1,1-Dichloroethene		0.5	<0.5	<25	<10	<0.5
cis-1,2-Dichloroethene		0.5	<0.5	350	200	<0.5
trans-1,2-Dichloroethene		0.5	<0.5	<25	16	<0.5
1,2-Dichloropropane		0.5	<0.5	<25	<10	<0.5
cis-1,3-Dichloropropene		0.5	<0.5	<25	<10	<0.5
trans-1,3-Dichloropropene		0.5	<0.5	<25	<10	<0.5
Ethylbenzene		0.5	<0.5	<25	<10	<0.5
2-Hexanone		1.0	<1.0	<50	<20	1.3
Methylene chloride		2.5	<2.5	<125	<50	<2.5
4-Methyl-2-pentanone		1.0	<1.0	<50	<20	<1.0
Styrene		0.5	<0.5	<25	<10	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<25	<10	<0.5
Tetrachloroethene		0.5	<0.5	<25	<10	<0.5
Toluene		0.5	<0.5	<25	<10	<0.5
1,1,1-Trichloroethane		0.5	<0.5	<25	<10	<0.5
1,1,2-Trichloroethane		0.5	<0.5	<25	<10	<0.5
Trichloroethene		0.5	<0.5	4,400	2,100	<0.5
Trichlorofluoromethane		0.5	<0.5	<25	<10	<0.5
Vinyl acetate		1.0	<1.0	<50	<20	<1.0
Vinyl Chloride		0.5	<0.5	<25	<10	<0.5
Total Xylenes		0.5	<0.5	<25	<10	<0.5
SURROGATE	SPK	ACP%	<u> </u>			
RECOVERY	CONC					
		80-120%				
Dibromofluoromethane			89	93	95	89
Toluene-d8			96	95	97	94
4-Bromofluorobenzene	50	83-132%	110	113	111	110



3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067 4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

#### 8260 QA / QC REPORT Reporting Unit: μg/l

#### 1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

uate Performed: 06/26/00 LAB Sample 1. D.: 00060127 aboratory Reference: EKI 11585

in the second se		S & S		A STATE OF			# 1		
									\$ (# <sup>3</sup> ()
11,1-Dichloroethene	14	20	35	35	105	105	0	61-145	14
enzene	0.0	20	21	20	105	100	5	76-127	11
richloroethene	78	20	102	100	120	110	2	71-120	14
Toluene	0.0	20	21	20	105	100	5	76-125	13
Chlorobenzene	0.0	20	22	21	110	105	5	75-130	13

1 = Result of Laboratory Sample I.D.

SPK CONC = Spiking Concentration (≤5 X PQL); PQL = Practical Quantitation Limit.

1SD = Matrix Spike Duplicate Result

%MS = Percent Recovery of MS: {(MS-R1)/SP} X 100.

%MSD = Percent Recovery of MSD: {(MSD-R1)/SP} X 100.

:PD = Relative Percent Difference: {(MS - MSD)/(MS + MSD)} X 100 X 2

ACP%MS(MSD) = Acceptable Range of Percent. ACP RPD = Acceptable Relative Percent Difference

#### 2. Laboratory Quality Control check sample

Date Performed: 06/26/00

AB Sample 1. D.: OCA8033,62-66

	SPEC COM		Service Control of the Control of th	253.27
ans-1,2-Dichloroethene	50	47	94	80 -120
11,1,1-Trichloroethane	50	49	98	80 -120
1,2-Dichloroethane	50	50	100	80 -120
etrachloroethene	50	50	100	80 -120
Styrene	50	48	96	80 -120

ANALYST: Burt Secrest DATE:

06/26/00

<sup>\*1</sup>S = Matrix Spike Result

#### dC' nof nstor Rec Ana' 's R lest

#### ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532 Tustin, CA 92780 (714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4 Phoenix, AZ 85040

(602) 736-0960 Fax (602) 736-0970

Page. of

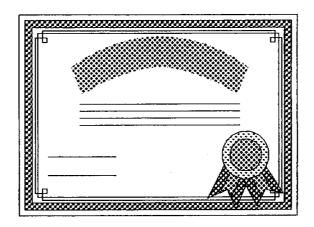
Lab Job No:

REQUIRED TAT:

CUSTOMER INFORMATION			PROJECT IN	FORMATI	ÓN		,		3	7	7	$\sqrt{}$	7		
COMPANY: ERLER + KALINDWSKI, INC.	PROJ	IECT NAME:	EBB			Sar		*	•/	7	/ /	/ /	/ /	/ <sub>/</sub>	
SEND REPORT TO: BRIAN AVCHARD	NUM:	BER: Ozali-	201						y						
ADDRESS: 3250 OCEAN PARK BLVD	LOCA	TION: WEB	B				*		7	/ /	/ /	/ /	/ · ,	/ ,	/ / /
SVITE 385	ADDF	ESS: 503	O FIRES	TONE	BLUD				$\mathbf{x}^{\prime}$	/<	<b>)</b> /				
SANTA MONICA (A 90405		5007	H GATE	E, CA				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/ ,		/ /	/ ,	/ ·,	Ι,	/ / '
PHONE: (310) 314 - 8855 FAX: (310) 314 - 8	860 SAMI	PLED BY: とう	<u>A</u>	- Markett	· Jan Barrasan de rail	ung prinses on the	1	<u>کو/</u>	/-	***					
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	/_	<u> </u>	_	<u> </u>	4	_	$\angle$	_	REMARKS/PRECAUTIONS
MW-I	2	6/20/00	13:45	W	HOMEVA	HCI	X					•			Z-WEEK TURNAROUND
MW-Z			11:05			1 1									
Mw-3			11:50												
MW-4			09:20								** .				
Mw-5			12:50												
MW-3-DUP			11:55												
RINSATE BLANK			12:05				4								<b>b</b>
RINGE WATER	+		12:10	1	4	+			X						HOLD
					1										
Total No. of Samples:		Meth	od of Shipn	nent: C	PURIER	2									
Relinquished By: Date/Time:		Rece	eived By:		D	ate/Time	∋:				Re	porti	ng F	orma	at: (check)
In a 6/20/0	14.	10									١,	IOR	MAL		S.D. HMMD
Relinquished By: Date/Time:		Rece	eived By:		D	ate/Time	∋:					3WC	)CB		OTHER
			1										CO		Officit
Relinquished By: Date/Time:		Rec	eived For La	ab/By:	D	ate/Ti/ne	ə: <i>J</i>				Sa	mple	Inte	grity	/: (check)
			W NV	(tru)	no	Cofre	0	/ د	14	./7	j	ntact	t		on ice

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3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067 4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970



#### ORANGE COAST ANALYTICAL THANKS YOU FOR YOUR BUSINESS

THE FOLLOWING PAGES ARE THE ANALYSIS REPORT

ON THE SAMPLES YOU REQUESTED.

IF YOU HAVE ANY QUESTIONS REGARDING THIS REPORT
PLEASE FEEL FREE TO CONTACT US.

## RECEIVED

JUL 2 0 2000

ERLER & KALINOWSKI, INC. SANTA MONICA OFFICE



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#### LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address:

3002 Dow Suite 532 Tustin, CA 92780

Telephone:

(714) 832-0064

**Laboratory Certification** 

(ELAP) No.:

1416

**Expiration Date:** 

2001

Laboratory Director's Name (Print):

Mark Noorani

Mark novani

Client:

Erler & Kalinowski, Inc.

Project No.:

991103.01

Project Name:

Webb

Laboratory Reference: EKI 11585A

Analytical Method: EPA 8260

Date Sampled:

06/20/00

Date Received:

06/20/00

Date Reported:

07/13/00

Sample Matrix:

<u>Water</u>

Chain of Custody Received:

Yes

Laboratory Director's Signature:

#### ANALYTICAL TEST RESULTS 8260 Reporting Unit: ug/l

DATE ANA	LYZED		07/07/00	07/07/00		
DILUTION	FACTOR		1	1		
LAB SAM	PLE I.D.			00060124A		
CLIENT SA	MPLE I.D.			Rinse Water		
COMPOUND		MDL	MB			
	· · · · · · · · · · · · · · · · · · ·					
Acetone		2.0	<2.0	140		
Benzene		0.5	<0.5	<0.5		
Bromodichloromethane		0.5	<0.5	<0.5		
Bromoform		0.5	<0.5	2.8		
Bromomethane	·	1.0	<1.0	<1.0		
2-Butanone		1.0	<1.0	6.9		
Carbon Disulfide		0.5	<0.5	<0.5		
Carbon Tetrachloride		0.5	<0.5	<0.5		
Chlorobenzene		0.5	<0.5	<0.5		
Chlorodibromomethane		0.5	<0.5	<0.5		
Chloroethane		0.5	<0.5	<0.5		
2-Chloroethyl vinyl ether		1.0	<1.0	<1.0		
Chloroform		0.5	<0.5	4.1		
Chloromethane		0.5	<0.5	<0.5		
1,1-Dichloroethane		0.5	<0.5	<0.5		
1,2-Dichloroethane		0.5	<0.5	<0.5		
1,1-Dichloroethene		0.5	<0.5	<0.5		
cis-1,2-Dichloroethene		0.5	<0.5	<0.5		
trans-1,2-Dichloroethene		0.5	<0.5	<0.5		
1,2-Dichloropropane		0.5	<0.5	<0.5		
cis-1,3-Dichloropropene		0.5	<0.5	<0.5		
trans-1,3-Dichloroproper	ie	0.5	<0.5	<0.5		
Ethylbenzene		0.5	<0.5	<0.5		
2-Hexanone		1.0	<1.0	1.5		
Methylene chloride		2.5	<2.5	<2.5		
4-Methyl-2-pentanone		1.0	<1.0	<1.0		
Styrene		0.5	<0.5	<0.5		
1,1,2,2-Tetrachloroethar	e	0.5	<0.5	<0.5		
Tetrachloroethene		0.5	<0.5	<0.5		
Toluene		0.5	<0.5	<0.5		
1,1,1-Trichloroethane		0.5	<0.5	<0.5		
1,1,2-Trichloroethane		0.5	<0.5	<0.5		
Trichloroethene		0.5	<0.5	<0.5		
Trichlorofluoromethane		0.5	<0.5	<0.5		
Vinyl acetate	· · · · · · · · · · · · · · · · · · ·	1.0	<1.0	<1.0		
Vinyl Chloride		0.5	<0.5	<0.5		
Total Xylenes		0.5	<0.5	<0.5		
SURROGATE	SPK	ACP%	MB	ACP%		
RECOVERY	CONC		%RC			
Dibromofluoromethane	50	80-120%	93	99		
Toluene-d8	50	81-132%	93	93		
4-Bromofluorobenzene	50	83-132%	108	114		

## 8260 QA / QC REPORT Reporting Unit: μg/l

#### 1. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

)ate Performed: 07/07/00 LAB Sample I.D.: A00060080 '\_aboratory Reference: EKI 11585

								\$1.50 miles   1800	
		COLINE.						) (R)	447.7
,1-Dichloroethene	0.0	20	13	14	65	70	7	61-145	14
Benzene	28.6	20	46	44	87	77	4	76-127	11
richloroethene	0.0	20	21	20	105	100	5	71-120	14
oluene	0.0	20	20	20	100	100	0	76-125	13
Chlorobenzene	0.0	20	22	21	110	105	5	75-130	13

₹1 = Result of Laboratory Sample I.D.

JPK CONC = Spiking Concentration (≤5 X PQL); PQL = Practical Quantitation Limit.

MS = Matrix Spike Result

**ISD** = Matrix Spike Duplicate Result

.6MS = Percent Recovery of MS: {(MS-R1)/SP} X 100.

%MSD = Percent Recovery of MSD: {(MSD-R1)/SP} X 100.

\text{PD = Relative Percent Difference: {(MS - MSD)/(MS + MSD)} X 100 X 2

CP%MS(MSD) = Acceptable Range of Percent.

ACP RPD = Acceptable Relative Percent Difference

#### 2. Laboratory Quality Control check sample

Pate Performed: 07/07/00

AB Sample 1. D.: OCA8035,62-66

The second secon	500 CONE	2. 2. 10.		281 2713
ans-1,2-Dichloroethene	50	43	86	80 -120
,1,1-Trichloroethane	50	52	104	80 -120
1,2-Dichloroethane	50	52	104	80 -120
etrachloroethene	50	51	102	80 -120
tyrene	50	51	102	80 -120

ANALYST: Burt Secrest DATE: 07/07/00

#### انات Request and Chair of Cautody necord

## 4

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532 Tustin, CA 92780 (714) 832-0064, Fax (714) 832-0067 4620 E. Elwood, Suite 4 Phoenix, AZ 85040

(602) 736-0960 Fax (602) 736-0970

REQUIRED TAT:

Lab Job No:		
Page	of	L
		140 1 21

CUSTOMER INFORMATION			PROJECT INF	ORMATIO	N			REQUEST THOO	,	77	7	7	7	
COMPANY FOLED + VALLADINSKI NC.	PROJE	CT. NAME WE	BB				/	E.	. /		/ /	/ /	/ /	′ / / ′/
SCHOOL BRIAN AVCHARD	NUMBI	* aauo	301				V ,	<i>\$</i>		/ /	′ /			///
ADDRESS 3750 OCEAN PARK BLVD	1,000	"" WEBI	B			-	Ŝ		/ /		/ /	/ /	/ /	/ / /
Suite 385	ADDR	<sup>ISS</sup> 5031	O FIREY	TONE	BWP		8			/~/	/ /			
SANTA MENICA, CA 90405		~~	w (	CA				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/ /	\ <b>5</b> \ <b>\</b>	/ .	/ ,	Ι,	/ /
100 314 - 8855 1 (310) 314 - 886	SAMP	www Bu	A				] /	ر م		Qγ /	/ /			
SAMPLE ID	NO. OF CONTAINERS	BAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.		<u> </u>				_	_	REMARKS/PRECAUTIONS
MW-1	2	6/20/00	13:45	W	YOHLWA	HCI	X							2-WEEK TURNAROUND
MW-Z	1		11:05	1		-	1							
Mw-3			11:50											
MW-4			09:20											
Mw-5			12:50											
MW-3-DUP			11:55											
RINSATE BLANK			12:05				+							
RINGE WATER	+	<u> </u>	12:10	+		+			X					HOLD
			ļ											
				· · · · · · · · · · · · · · · · · · ·			<u> </u>							
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							<u> </u>		_		<u> </u>			
		<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>							
Total No. of Samples:		Meth	od of Shipn	nent: C	PURIE	2								
Relinquished By: Date/Time:	יט ו		eived By:			Date/Time	<b>e</b> :	<u>-</u>		F				it: (check)
	17.	·	·								NOR	MAL		S.D. HMMD
Relinquished By: Date/Time:		Rece	eived By:		C	Date/Time	<b>e</b> :				RWC	СВ		OTHER
Relinquished By: Date/Time:			eived For La	, .		Date/Tim								: (check)
			my	m	110	gue	10	0/	1.	10	intac	١		on ice

# ORANGE COAST ANALYTICAL, INC. PHONE MESSAGE

Containers Requested:  voa vials  glass jars  500 ml plastic  Method Shipment:  cooler Fed-Ex ASAP  Deliver by  Deliver by		7770112	NEGOAGE
PROJECT:	Initials: \$5 ()	zande)	Date: 7-12-05
Status: In ProgressCompletedUpcoming/Future  Date Received:			CONTACT: Brain A.
Samples: Action Item: Turnaround:  Rand Single that we on hold Ring water  Clearly Awar Singles has capaid.  Sontainers Requested:  voa vials  glass jars  500 ml plastic  1 liter plastic  1 liter glass  trip blank  Rethod Shipment:  cooler Fed-Ex ASAP  box UPS  Deliver by  Will Call on  Include:  Include:	/		mpletedUpcoming/Future
Containers Requested:	Date Received: 6	- 50 -00	
Containers Requested:			
Containers Requested:	Rua sude	that us or	hold Rise water
voa vials  glass jars  500 ml plastic  l liter plastic  1 liter glass  trip blank  — cooler Fed-Ex ASAP  box UPS  Will Call on  Include:  Chain of Custody	Client is	Awre Supl	u has expired.
voa vials  glass jars  500 ml plastic  l liter plastic  1 liter glass  trip blank  — cooler Fed-Ex ASAP  box UPS  Will Call on  Include:  Chain of Custody			
voa vials  glass jars  500 ml plastic  l liter plastic  1 liter glass  trip blank  — cooler Fed-Ex ASAP  box UPS  Will Call on  Include:  Chain of Custody			•
voa vials  glass jars  500 ml plastic  l liter plastic  1 liter glass  trip blank  — cooler Fed-Ex ASAP  box UPS  Will Call on  Include:  Chain of Custody			
	voa vials glass jars 500 ml plastic 1 liter plastic 1 liter glass trip blank	:	coolerFed-Ex ASAPboxUPS

# **APPENDIX C**

**Laboratory Reports and Chain-of-Custody Forms** for Soil Vapor Sampling



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

# RECEIVED

JUN 2 3 2000

ERLER & KALINOWSKI, INC. SANTA MONICA OFFICE

#### LABORATORY REPORT

Client:

ERLER & KALINOWSKI, INC.

Date of Report:

06/05/00

Address:

3250 Ocean Park Blvd., Suite 385

Date Received:

05/18/00

Santa Monica, CA 90405

PAI Project No:

P2001190

Contact:

Mr. Brian Auchard

Purchase Order:

Verbal

Client Project ID: WEBB #961025.03

Three (3) Tedlar Bag Samples labeled:

"SVE-D1"

"Blower Influent"

"SVE-1"

The samples were received at the laboratory under chain of custody on May 18, 2000. The samples were received intact. The dates of analysis are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-14A. The method was modified for using Tedlar bags. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical system used was comprised of a Hewlett Packard Model 5972 GC/MS/DS interfaced to an Entech 7000 automated whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data summary sheets.

Reviewed and Approved:

Christopher Casteel

Manager of Technical Operations

Reviewed and Approved:

Chris Parnell Senior Chemist



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID:

SVE-D1

PAI Sample ID : P2001190-001

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Analyst: Chris Casteel

Date Received: 05/18/00

Instrument: HP 5972/Entech 7000

Date Analyzed: 05/19/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

1.000 milliliter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/M³	mg/M <sup>3</sup>	ppm	ppm
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	1.2	1.0	0.30	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	1.2	1.0	0.30	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	0.61 TR	1.0	0.19 TR	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : £6



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID:

SVE-D1

PAI Sample ID:

P2001190-001

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Analyst: Chris Casteel

Date Received: 05/18/00

Instrument: HP 5972/Entech 7000

Date Analyzed: 05/19/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

1.000 milliliter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/M <sup>3</sup>	mg/M³	ppm	ppm
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	46	1.0	8.6	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	3.8	1.0	0.57	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by : KG

Date: 6/2/00



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID:

**Blower Influent** 

PAI Sample ID:

P2001190-002

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Date Received: 05/18/00

Analyst: Chris Casteel

Instrument: HP 5972/Entech 7000

Date Analyzed: 05/20/00

0.200 milliliter(s)

Matrix: Tedlar Bag

Volume(s) Analyzed:

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/M³	mg/M³	ppm	ppm
74-87-3	Chloromethane	ND	5.0	ND	2.4
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0
75-00-3	Chloroethane	ND	5.0	ND	1.9
74-83-9	Bromomethane	ND	5.0	ND	1.3
67-64-1	Acetone	ND	5.0	ND	2.1
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.90
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3
75-09-2	Methylene chloride	ND	5.0	ND	1.5
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.66
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4
78-93-3	2-Butanone	ND	5.0	ND	1.7
67-66-3	Chloroform	ND	5.0	ND	1.0
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.93
71-43-2	Benzene	ND	5.0	ND	1.6
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: R(5



Air Quality Laboratory A Division of Columbia Analytical Services. Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID:

**Blower Influent** 

PAI Sample ID:

P2001190-002

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Date Received: 05/18/00

Analyst: Chris Casteel

Matrix: Tedlar Bag

Date Analyzed:

05/20/00

Instrument: HP 5972/Entech 7000

Volume(s) Analyzed:

0.200 milliliter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
1		mg/M <sup>3</sup>	mg/M³	ppm	ppm
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75
79-01-6	Trichloroethene	280	5.0	53	0.94
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.93
108-88-3	Toluene	ND	5.0	ND	1.3
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59
591-78-6	2-Hexanone	ND	5.0	ND	1.2
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.66
127-18-4	Tetrachloroethene	15	5.0	2.2	0.75
108-90-7	Chlorobenzene	ND	5.0	ND	1.1
100-41-4	Ethylbenzene	ND	5.0	ND	1.2
75-25-2	Bromoform	ND	5.0	ND	0.49
100-42-5	Styrene	ND	5.0	ND	1.2
1330-20-7	m,p-Xylenes	ND	5.0	ND	1.2
95-47-6	o-Xylene	ND	5.0	ND	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.74
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.84
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.84
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.84

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: RG
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Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID : SVE-1

PAI Sample ID : P2001190-003

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Analyst: Chris Casteel

Date Received: 05/18/00

Instrument: HP 5972/Entech 7000

Date Analyzed: 05/19/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.025 milliliter(s)

0.0025 milliliter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/M³	mg/M <sup>3</sup>	ppm	ppm
74-87-3	Chloromethane	ND	40	ND	20
75-01-4	Vinyl Chloride	ND	40	ND	16
75-00-3	Chloroethane	ND	40	ND	15
74-83-9	Bromomethane	ND	40	ND	10
67-64-1	Acetone	ND	40	ND	17
75-69-4	Trichlorofluoromethane	ND	40	ND_	7.2
75-35-4	1,1-Dichloroethene	ND	40	ND_	10
75-09-2	Methylene chloride	ND	40	ND	12
75-15-0	Carbon Disulfide	ND	40	ND	13
76-13-1	Trichlorotrifluoroethane	ND	40	ND	5.3
156-60-5	trans-1,2-Dichloroethene	ND	40	ND	10
156-59-2	cis-1,2-Dichloroethene	ND	40	ND	10
75-34-3	1,1-Dichloroethane	ND	40	ND	10.0
1634-04-4	Methyl tert-Butyl Ether	ND	40	ND	11
108-05-4	Vinyl Acetate	ND	40	ND	11
78-93-3	2-Butanone	ND	40	ND	14
67-66-3	Chloroform	ND	40	ND	8.3
107-06-2	1,2-Dichloroethane	ND	40	ND	10.0
71-55-6	1,1,1-Trichloroethane	40 TR	40	7.3 TR	7.4
71-43-2	Benzene	ND	40	ND	13
56-23-5	Carbon Tetrachloride	ND	40	ND	6.4
78-87-5	1,2-Dichloropropane	ND	40	ND	8.7

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: R(5



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

# **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID : SVE-1

PAI Sample ID : P2001190-003

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled: 05/18/00

Analyst: Chris Casteel

Date Received: 05/18/00

Date Analyzed: 05/19/00

Matrix: Tedlar Bag

Instrument: HP 5972/Entech 7000

Volume(s) Analyzed:

0.025 milliliter(s)

0.0025 milliliter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/M³	mg/M <sup>3</sup>	ppm	ppm
75-27-4	Bromodichloromethane	ND	40	ND	6.0
79-01-6	Trichloroethene	20,000	40	3,700	7.5
10061-01-5	cis-1,3-Dichloropropene	ND	40	ND	8.9
108-10-1	4-Methyl-2-pentanone	ND	40	ND	9.8
10061-02-6	trans-1,3-Dichloropropene	ND	40	ND	8.9
79-00-5	1,1,2-Trichloroethane	ND	40	ND	7.4
108-88-3	Toluene	ND	40	ND	11
124-48-1	Dibromochloromethane	ND	40	ND	4.7
591-78-6	2-Hexanone	ND	40	ND	9.8
106-93-4	1,2-Dibromoethane	ND	40	ND	5.3
127-18-4	Tetrachloroethene	630	40	94	6.0
108-90-7	Chlorobenzene	ND	40	ND	8.7
100-41-4	Ethylbenzene	ND	40	ND	9.2
75-25-2	Bromoform	ND	40	ND	3.9
100-42-5	Styrene	ND	40	ND	9.4
1330-20-7	m,p-Xylenes	ND	40	ND	9.2
95-47-6	o-Xylene	ND	40	ND	9.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	40	ND	5.9
541-73-1	1,3-Dichlorobenzene	ND	40	ND	6.7
106-46-7	1,4-Dichlorobenzene	ND	40	ND	6.7
95-50-1	1,2-Dichlorobenzene	ND	40	ND	6.7

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by: K(5



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID: N/A

PAI Sample ID: Method Blank

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled:

N/A

Analyst: Chris Casteel

Date Received:

N/A

Date Analyzed: 05/19/00

Matrix: Tedlar Bag

Instrument: HP 5972/Entech 7000

Volume(s) Analyzed:

1.000 Liter(s)

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/M³	μg/M³	ppb	ppb
74-87-3	Chloromethane	ND	1.0	ND	0.49
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
75-00-3	Chloroethane	ND	1.0	ND	0.38
74-83-9	Bromomethane	ND	1.0	ND	0.26
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
67-66-3	Chloroform	ND	1.0	ND	0.21
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.19
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID:

N/A

PAI Sample ID:

Method Blank

Test Code: GC/MS EPA Mod. TO-14A

Date Sampled:

N/A

Analyst: Chris Casteel

Date Received:

N/A

Date Analyzed: 05/19/00

Instrument: HP 5972/Entech 7000

1.000 Liter(s)

Matrix: Tedlar Bag

Volume(s) Analyzed:

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/M³	μg/M³	ppb	ppb
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01 <b>-</b> 6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.19
108-88-3	Toluene	ND	1.0	ND	0.27
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
591-78-6	2-Hexanone	ND	1.0	ND	0.24
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.24
1330-20-7	m,p-Xylenes	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified by:

#### CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

			01111211 01 000000 /			
Erler & Kal	lnowski, Inc.	·		<u>.</u> .	Analytical Laboratory: PERFORMAN	<u>ce</u>
Project Nu	mber: 961025.0	3		<u>.</u> .	Date Sampled: 5/18/00	
	ne: WEBB			Sampled By: BAA		
Source of	Samples:				Report Results To: BRIAN AUCH	ARD
Location:	5030 FIRESTO	NE BLUD.	SOUTH GATE		Phone Number: (310) 314-8855	
Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
	SVE-DI	VAPOR	1-L TEDLAR	7:44	TO-14	2 WEEKS
	BLOWER INFLUENT	1		7:48		
	SVE-1		4	7:52	<b>↓</b>	<b>*</b> :
						'
	· · · · · · · · · · · · · · · · · · ·					

Special Instructions:

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature / Affiliation	
	KI 5/18/20	15:50	ROBIN KNIGHT Robin Kall	
ROBIN KNIGHT / Polither	5/18/00	17:30	Walking	5/18/00 17:30
		<u> </u>		



Air Quality Laboratory

A Division of Columbia Analytical Services, Inc.

An Employee Owned Company

# RECEIVED

MAY 15 2000

LABORATORY REPORT

ERLER & KALINOWSKI, INC. SANTA MONICA OFFICE

ERLER & KALINOWSKI, INC.

Date of Report:

05/01/00

Address:

Client:

3250 Ocean Park Blvd., Suite 385

Date Received:

04/13/00

Santa Monica, CA 90405

PAI Project No:

P2000877

Contact:

Mr. Brian Auchard

Purchase Order:

Verbal

Client Project ID: WEBB #961025.03

Four (4) Tedlar Bag Samples labeled:

"SVE-D1"

"Blower Influent"

"Blower Influent DUP"

"SVE-1"

The samples were received at the laboratory under chain of custody on April 13, 2000. The samples were received intact. The dates of analysis are indicated on the attached data sheets.

### Volatile Organic Compound Analysis

The samples were analyzed by combined gas chromatography/mass spectrometry (GC/MS) for volatile organic compounds. The analyses were performed according to the methodology outlined in EPA Method TO-14A. The method was modified for using Tedlar bags. The analyses were performed by gas chromatography/mass spectrometry, utilizing a direct cryogenic trapping technique. The analytical systems used were comprised of a Hewlett Packard Model 5973 GC/MS/DS interfaced to a Tekmar AutoCan Elite whole air inlet system/cryogenic concentrator. A 100% Dimethylpolysiloxane capillary column (RT<sub>x</sub>-1, Restek Corporation, Bellefonte, PA) was used to achieve chromatographic separation.

The results of analyses are given on the attached data summary sheets.

Reviewed and Approved:

Chris Parnell

Senior Chemist

Reviewed and Approved:

Michael Tuday

Laboratory Director



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

# RESULTS OF ANALYSIS

PAGE 1 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID : SVE-D1 PAI Sample ID : P2000877-001

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/14/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.40 ml

D.F. = 1.00

	COMPOUND	RESULT	REPORTING LIMIT	RESULT	REPORTING LIMIT
CAS#	COMPOUND	mg/m³	mg/m³	ppm	ppm
74-87-3	Chloromethane	ND	2.5	ND	1.2
75-01-4	Vinyl Chloride	ND	2.5	ND	0.98
74-83-9	Bromomethane	ND	2.5	ND	0.64
75-00-3	Chloroethane	ND	2.5	ND	0.95
67-64-1	Acetone	ND	2.5	ND	1.1
75-69-4	Trichlorofluoromethane	ND	2.5	ND	0.45
75-35-4	1,1-Dichloroethene	3.9	2.5	0.99	0.63
75-09-2	Methylene chloride	ND	2.5	ND	0.72
76-13-1	Trichlorotrifluoroethane	ND	2.5	ND	0.33
75-15-0	Carbon Disulfide	3.8	2.5	1.2	0.80
156-60-5	trans-1,2-Dichloroethene	ND	2.5	ND	0.63
75-34-3	1,1-Dichloroethane	ND	2.5	ND	0.62
1634-04-4	Methyl tert-Butyl Ether	ND	2.5	ND	0.69
108-05-4	Vinyl Acetate	ND	2.5	ND	0.71
78-93-3	2-Butanone	ND	2.5	ND	0.85
156-59-2	cis-1,2-Dichloroethene	3.5	2.5	0.87	0.63
67-66-3	Chloroform	ND	2.5	ND	0.51
107-06-2	1,2-Dichloroethane	ND	2.5	ND	0.62
71-55-6	1,1,1-Trichloroethane	ND	2.5	ND	0.46
71-43-2	Benzene	ND	2.5	ND	0.78
56-23-5	Carbon Tetrachloride	ND	2.5	ND	0.40
78-87-5	1,2-Dichloropropane	ND	2.5	ND	0.54

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

Date: 4/27/00



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID : SVE-D1 PAI Sample ID: P2000877-001

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/14/00

0.40 ml

Matrix: Tedlar Bag

Volume(s) Analyzed:

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
75-27-4	Bromodichloromethane	ND	2.5	ND	0.37
79-01-6	Trichloroethene	130	2.5	25	0.47
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	ND	0.55
108-10-1	4-Methyl-2-pentanone	ND	2.5	ND	0.61
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	ND	0.55
79-00-5	1,1,2-Trichloroethane	ND	2.5	ND	0.46
108-88-3	Toluene	1.5 TR	2.5	0.40 TR	0.66
591-78-6	2-Hexanone	ND	2.5	ND	0.61
124-48-1	Dibromochloromethane	ND	2.5	ND	0.29
106-93-4	1,2-Dibromoethane	ND	2.5	ND	0.33
127-18-4	Tetrachloroethene	1.9 TR	2.5	0.28 TR	0.37
108-90-7	Chlorobenzene	ND	2.5	ND	0.54
100-41-4	Ethylbenzene	ND	2.5	ND	0.58
1330-20-7	m- & p-Xylenes	ND	2.5	ND	0.58
75-25-2	Bromoform	ND	2.5	ND	0.24
100-42-5	Styrene	ND	2.5	ND	0.59
95-47-6	o-Xylene	ND	2.5	ND	0.58
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.36
541-73-1	1,3-Dichlorobenzene	ND	2.5	ND	0.42
106-46-7	1,4-Dichlorobenzene	ND	2.5	ND	0.42
95-50-1	1,2-Dichlorobenzene	ND	2.5	ND	0.42

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Date: 4/27/00 Verified By: RG

00877VOA.CP1 - Sample



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID: Blower Influent

PAI Sample ID : P2000877-002

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/15/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.20 ml

D.F. = 1.00

	COLFOURT	RESULT	REPORTING LIMIT	RESULT	REPORTING LIMIT
CAS#	COMPOUND	mg/m³	mg/m³	ppm	ppm
74-87-3	Chloromethane	ND	5.0	ND	2.4
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0
74-83-9	Bromomethane	ND	5.0	ND	1.3
75-00-3	Chloroethane	ND	5.0	ND	1.9
67-64-1	Acetone	ND	5.0	ND	2.1
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89
75-35-4	1,1-Dichloroethene	3.0 TR	5.0	0.76 TR	1.3
75-09-2	Methylene chloride	3.2 TR	5.0	0.91 TR	1.4
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65
75-15-0	Carbon Disulfide	24	5.0	7.7	1.6
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4
78-93-3	2-Butanone	2.7 TR	5.0	0.90 TR	1.7
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3
67-66-3	Chloroform	ND	5.0	ND	1.0
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92
71-43-2	Benzene	ND	5.0	ND	1.6
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG Date: 4127100

00877VOA.CP1 - Sample (2)

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Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client

: Erler & Kalinowski, Inc.

Client Sample ID: Blower Influent

PAI Sample ID : P2000877-002

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/15/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.20 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING LIMIT
CAS#	COMPOUND		LIMIT		l I
		mg/m³	mg/m³	ppm	ppm
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75
79-01-6	Trichloroethene	370	5.0	70	0.93
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92
108-88-3	Toluene	7.9	5.0	2.1	1.3
591-78-6	2-Hexanone	ND	5.0	ND	1.2
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65
127-18-4	Tetrachloroethene	8.2	5.0	1.2	0.74
108-90-7	Chlorobenzene	ND	5.0	ND	1.1
100-41-4	Ethylbenzene	ND	5.0	ND	1.2
1330-20-7	m- & p-Xylenes	ND	5.0	ND	1.2
75-25-2	Bromoform	ND	5.0	ND	0.48
100-42-5	Styrene	ND	5.0	ND	1.2
95-47-6	o-Xylene	ND	5.0	ND	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID: Blower Influent DUP

PAI Sample ID : P2000877-003

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/15/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.20 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
74-87-3	Chloromethane	ND	5.0	ND	2.4
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0
74-83-9	Bromomethane	ND	5.0	ND	1.3
75-00-3	Chloroethane	ND	5.0	ND	1.9
67-64-1	Acetone	ND	5.0	ND	2.1
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89
75-35-4	1,1-Dichloroethene	2.9 TR	5.0	0.72 TR	1.3
75-09-2	Methylene chloride	ND	5.0	ND	1.4
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65
75-15-0	Carbon Disulfide	27	5.0	8.5	1.6
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4
78-93-3	2-Butanone	ND	5.0	ND	1.7
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3
67-66-3	Chloroform	ND	5.0	ND	1.0
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92
71-43-2	Benzene	ND	5.0	ND	1.6
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80
78-87-5	1,2-Dichloropropane	ND	5.0	ND_	1.1

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

Date: 4127100



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID: Blower Influent DUP

PAI Sample ID : P2000877-003

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/15/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

0.20 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75
79-01-6	Trichloroethene	350	5.0	65	0.93
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92
108-88-3	Toluene	6.9	5.0	1.8	1.3
591-78-6	2-Hexanone	ND	5.0	ND	1.2
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65
127-18-4	Tetrachloroethene	7.3	5.0	1.1	0.74
108-90-7	Chlorobenzene	ND	5.0	ND	1.1
100-41-4	Ethylbenzene	ND	5.0	ND	1.2
1330-20-7	m- & p-Xylenes	ND	5.0	ND	1.2
75-25-2	Bromoform	ND	5.0	ND	0.48
100-42-5	Styrene	ND	5.0	ND	1.2
95-47-6	o-Xylene	ND	5.0	ND	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Date: 4127100 Verified By: RG

00877VOA.CP1 - Sample (3)



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#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID: SVE-1

PAI Sample ID: P2000877-004

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Date Analyzed: 4/14/00

Instrument: HP5973/Tekmar AUTOCan Elite

Matrix: Tedlar Bag

Volume(s) Analyzed: 0.0020 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	ND	500	ND	200
74-83-9	Bromomethane	ND	500	ND	130
75-00-3	Chloroethane	ND	500	ND	190
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	89
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	140
76-13-1	Trichlorotrifluoroethane	ND	500	ND	65
75-15-0	Carbon Disulfide	ND	500	ND	160
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
75-34-3	1,1-Dichloroethane	ND	500	ND	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
156-59-2	cis-1,2-Dichloroethene	ND	500	ND	130
67-66-3	Chloroform	ND	500	ND	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	92
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	ND	500	ND	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

00877VOA.CPI - Sample (4)

Verified By: RG

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#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID : SVE-1

PAI Sample ID : P2000877-004

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/14/00

Matrix: Tedlar Bag

Volume(s) Analyzed: 0.0020 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	35,000	500	6,500	93
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	NĐ	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	92
108-88-3	Toluene	ND	500	ND	130
591-78-6	2-Hexanone	ND	500	ND	120
124-48-1	Dibromochloromethane	ND	500	ND	59
106-93-4	1,2-Dibromoethane	ND	500	ND	65
127-18-4	Tetrachloroethene	800	500	120	74
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
1330-20-7	m- & p-Xylenes	ND	500	ND	120
75-25-2	Bromoform	ND	500	ND	48
100-42-5	Styrene	ND	500	ND	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	73
541-73-1	1,3-Dichlorobenzene	ND	500	ND	83
106-46-7	1,4-Dichlorobenzene	ND	500	ND	83
95-50-1	1,2-Dichlorobenzene	ND	500	ND	83

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

Date: 4127/00



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID: SVE-1

PAI Sample ID: P2000877-004DUP

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Date Analyzed: 4/14/00

Instrument: HP5973/Tekmar AUTOCan Elite Matrix: Tedlar Bag

Volume(s) Analyzed: 0.0020 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
75-27-4	Bromodichloromethane	ND	500	ND	75
79-01-6	Trichloroethene	36,000	500	6,700	93
10061-01-5	cis-1,3-Dichloropropene	ND	500	ND	110
108-10-1	4-Methyl-2-pentanone	ND	500	ND	120
10061-02-6	trans-1,3-Dichloropropene	ND	500	ND	110
79-00-5	1,1,2-Trichloroethane	ND	500	ND	92
108-88-3	Toluene	ND	500	ND	130
591-78-6	2-Hexanone	ND	500	ND	120
124-48-1	Dibromochloromethane	ND	500	ND	59
106-93-4	1,2-Dibromoethane	ND	500	ND	65
127-18-4	Tetrachloroethene	830	500	120	74
108-90-7	Chlorobenzene	ND	500	ND	110
100-41-4	Ethylbenzene	ND	500	ND	120
1330-20-7	m- & p-Xylenes	ND	500	ND	120
75-25-2	Bromoform	ND	500	ND	48
100-42-5	Styrene	ND	500	ND	120
95-47-6	o-Xylene	ND	500	ND	120
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	ND	73
541-73-1	1,3-Dichlorobenzene	ND	500	ND	83
106-46-7	1,4-Dichlorobenzene	ND	500	ND	83
95-50-1	1,2-Dichlorobenzene	ND	500	ND	83

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

00877VOA.CP1 - DUP



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

: Erler & Kalinowski, Inc.

Client Sample ID: SVE-1

Client

PAI Sample ID: P2000877-004DUP

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: 4/13/00

Analyst: Chris Casteel

Date Received: 4/13/00

Date Analyzed: 4/14/00

Instrument: HP5973/Tekmar AUTOCan Elite

Matrix: Tedlar Bag

Volume(s) Analyzed: 0.0020 ml

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		mg/m³	mg/m³	ppm	ppm
74-87-3	Chloromethane	ND	500	ND	240
75-01-4	Vinyl Chloride	ND	500	ND_	200
74-83-9	Bromomethane	ND	500	ND	130
75-00-3	Chloroethane	ND	500	ND	190
67-64-1	Acetone	ND	500	ND	210
75-69-4	Trichlorofluoromethane	ND	500	ND	89
75-35-4	1,1-Dichloroethene	ND	500	ND	130
75-09-2	Methylene chloride	ND	500	ND	140
76-13-1	Trichlorotrifluoroethane	ND	500	ND	65
75-15-0	Carbon Disulfide	ND	500	ND	160
156-60-5	trans-1,2-Dichloroethene	ND	500	ND	130
75-34-3	1,1-Dichloroethane	ND	500	ND	120
1634-04-4	Methyl tert-Butyl Ether	ND	500	ND	140
108-05-4	Vinyl Acetate	ND	500	ND	140
78-93-3	2-Butanone	ND	500	ND	170
156-59-2	cis-1,2-Dichloroethene	ND	500	ND	130
67-66-3	Chloroform	ND	500	ND	100
107-06-2	1,2-Dichloroethane	ND	500	ND	120
71-55-6	1,1,1-Trichloroethane	ND	500	ND	92
71-43-2	Benzene	ND	500	ND	160
56-23-5	Carbon Tetrachloride	ND	500	ND	80
78-87-5	1,2-Dichloropropane	ND	500	ND	110

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

Date: 4/27/00



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client : Erler & Kalinowski, Inc.

Client Sample ID: Method Blank PAI Sample ID: P000414-MB

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled:

N/A

Analyst: Chris Casteel

Date Received:

N/A

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/14/00

Matrix: Tedlar Bag

Volume(s) Analyzed:

1.00 Liter

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/m³	μg/m³	ppb	ppb
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: 26



Air Quality Laboratory A Division of Columbia Analytical Services, Inc. An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

: Erler & Kalinowski, Inc. Client

Client Sample ID: Method Blank PAI Sample ID: P000414-MB

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled: N/A

Analyst: Chris Casteel

N/A Date Received:

Date Analyzed: 4/14/00

Instrument: HP5973/Tekmar AUTOCan Elite

1.00 Liter

Matrix: Tedlar Bag

Volume(s) Analyzed:

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/m³	μg/m³	ppb	ppb
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
1330-20-7	m- & p-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: R

Date: 4127100



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#### **RESULTS OF ANALYSIS**

PAGE 1 OF 2

Client : Erler & Kalinowski, Inc.

Client Sample ID : Method Blank
PAI Sample ID : P000415-MB

Test Code: GC/MS Mod. EPA TO-14A

Date Sampled:

N/A

Analyst: Chris Casteel

Date Received:

N/A

Instrument: HP5973/Tekmar AUTOCan Elite

Date Analyzed: 4/15/00

1N/A

Matrix : Tedlar Bag

Volume(s) Analyzed:

1.00 Liter

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/m³	μg/m³	ppb	ppb
74-87-3	Chloromethane	ND	1.0	ND	0.48
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39
74-83-9	Bromomethane	ND	1.0	ND	0.26
75-00-3	Chloroethane	ND	1.0	ND	0.38
67-64-1	Acetone	ND	1.0	ND	0.42
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25
75-09-2	Methylene chloride	ND	1.0	ND	0.29
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28
78-93-3	2-Butanone	ND	1.0	ND	0.34
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25
67-66-3	Chloroform	ND	1.0	ND	0.20
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18
71-43-2	Benzene	ND	1.0	ND	0.31
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG

Date: 4/27/00

00877VOA.CP1 - MBlank (2)



Air Quality Laboratory

A Division of Columbia Analytical Services, Inc.

An Employee Owned Company

#### **RESULTS OF ANALYSIS**

PAGE 2 OF 2

Client: Erler & Kalinowski, Inc.

Client Sample ID: Method Blank PAI Sample ID: P000415-MB

Test Code: GC/MS Mod. EPA TO-14A

Analyst: Chris Casteel

Date Sampled: N/A

Date Received: N/A

Instrument: HP5973/Tekmar AUTOCan Elite Date Analyzed: 4/15/00

Matrix: Tedlar Bag Volume(s) Analyzed: 1.00 Liter

D.F. = 1.00

		RESULT	REPORTING	RESULT	REPORTING
CAS#	COMPOUND		LIMIT		LIMIT
		μg/m³	μg/m³	ppb	ppb
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15
79-01-6	Trichloroethene	ND	1.0	ND	0.19
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18
108-88-3	Toluene	ND	1.0	ND	0.27
591-78-6	2-Hexanone	ND	1.0	ND	0.24
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15
108-90-7	Chlorobenzene	ND	1.0	ND	0.22
100-41-4	Ethylbenzene	ND	1.0	ND	0.23
1330-20-7	m- & p-Xylenes	ND	1.0	ND	0.23
75-25-2	Bromoform	ND	1.0	ND	0.10
100-42-5	Styrene	ND	1.0	ND	0.23
95-47-6	o-Xylene	ND	1.0	ND	0.23
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17

TR = Detected Below Indicated Reporting Limit

ND = Not Detected

Verified By: RG Date: 417100

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Pa000877

Erler & Kal	lnowski, Inc.			_	Analytical Laboratory: PERFORMANCE	
Project Nu	mber:	161025.0	3		Date Sampled: 4/(3/00	······································
Project Na				<del>-</del>	Sampled By: BJA	
Source of	Samples: WEBA	<u> </u>		<b></b>	Report Results To: BRIAN AUCHARD	
Location:	5030 FIREST	rone Bu	UD, SOUTH GATE, CA	<u> </u>	Phone Number: (310) 314-8855	
Lab Sample I D	Field Sample I D	Sample Type	Number and Type of Containers	Time Collected	Analyses Requested (EPA Method Number)	Results Required By (Date/Time)
	SUE-D)	VAPOR	1-L TEDLAR	10:25		
-2	BLOWER INFLUENT	. ]		10:30		_
-3	BLOWER INPLUENT			10:32		<del>`</del>
-4	3VE-1			10:37		
		-				
		_	_			

Special Instructions:

Relinquished By: Name / Signature / Affiliation	Date	Time	Received By: Name / Signature /	neelletton		
BRIAN AUCHARD / 2. Que	/EKI 4/13/0	0 13:45	Scapet Relle	XIX W	L EK	I
Sparlot Relle & Love	EKI 4/13/0	0 3:35%	- Mal The	COAST	4/13	3:35
Jaffy	F-13-00	15:00	Kelly Millie		4-1300	4:55